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ABSTRACT

The teacher's guide is intended for use in conjunction with 15-minute instructional television lessons featuring occupational clusters (construction, communications and media, business and office, health, industrial, transportation, public and personal services, consumer and homemaking, marketing and distribution), for fourth, fifth, and sixth grades and contains materials for classroom preparation and for followup activities. Each lesson guide includes a brief summary of the film, specifies what children should know about it, and outlines related projects. Preparation materials are vocabulary words, posters, and related math or science problems. Hands-on projects using tools and materials available to classroom teachers are emphasized; they are accompanied by detailed instructions. The guide is heavily illustrated with drawings which may also be used with a K-6 curriculum guide developed by Project SPAN (Start Planning Ahead Now or Accelerated Project for a Systems Program Approaching Non-unemployment of Vocational Students), CE 004 045. (MDW)

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BE
EMPLOYABLE

START PLANNING AHEAD NOW!

"CAREER AWARENESS"
IN THE
ELEMENTARY GRADES

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INSTRUCTIONAL TELEVISION
TEACHERS GUIDE
FOR GRADES FOUR, FIVE AND SIX

Department of Instruction
Division of Vocational Education
Memphis City Schools

OE004044

SPAN is an Accelerated Project for a Systems Program Approaching Non-Unemployment of Vocational Students. This exemplary project in Vocational Education is funded under Part D of Public Law 90-576, Project Number 0-361-0115 and Contract Number OEC-70-5181.

FORWORD

The elementary phase of the SPAN Project is primarily concerned with introducing upper elementary children to the world of work. It is designed to familiarize them with the "cluster" of occupations, the titles of various jobs, and the tools generally associated with each worker. In addition, this phase of the project is developed around the concepts that there is dignity in working, that there is satisfaction - both monetary and ascetic-derived from working, that the longer a child stays in school the better are his chances for a rewarding job, and that there is a realistic place for a child in the world of work.

To achieve these goals, our approach is three fold: classroom preparation for the telecast lesson, the ITV lesson itself and the ensuring discussion and/or questions, and the follow-up classroom activities "hands-on" projects. The classroom preparation should include the working with the vocabulary words for the lesson, displaying the posters of the workers to be shown, completing the various math or science problems accompanying the lesson, and general preparation for the telecast. The lesson guide for each telecast will include a brief summary of the film, what the children should know about the film, and suggestions for further classroom activities. To carry our the theme of occupational awareness, in each lesson guide an attempt has been made to utilize words generally associated with the cluster of occupations featured in each film in substitution for generally accepted lables such as "summary", "vocabulary words", "objectives", "preparation", and "books to read".

The telecast lesson will be shown on WKNO-TV at various times. These times will be in the schedule from the station. Each lesson will be fifteen minutes in length and will feature a cluster of occupations (that is occupations that are generally related - as construction trades, health occupations, transportation occupations, etc.). It would be good to watch the lesson at a time when follow-up questions and discussion take place immediately. Telecast lessons that conflict with your schedule or that you miss may be checked out of the area offices or the film library of the Memphis City Schools.

Accompanying each lesson guide will be suggestions for follow-up activities, coordinated with the various elementary curriculum guides. In addition to the activities, there will be three of four "hands-on" projects. The projects are designed to allow the children to use (or put his "hands-on") many of the tools he saw the workers using in the telecast lesson. The instructions are printed in detail and uses materials easily available to the classroom teacher.

TEACHER'S GUIDE
TO
CAREER EDUCATION

Project SPAN
Memphis City Schools
1973

ACKNOWLEDGMENTS

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At this point it is obvious that the most important link in the chain of communication to the children is YOU, the classroom teacher. It is you who will have the way for the telecast lesson, and it is you who will lead the follow-up activities and discussions. Thesuccessful completion of this project is in your hands. Any suggestions or ideas for improvement will be welcomed. Any assistance you need will be forth coming.

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WHO BUILDS OUR HOUSES?

A TEACHER'S GUIDE

TO

CONSTRUCTION OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGMENTS

CONSTRUCTION OCCUPATIONS

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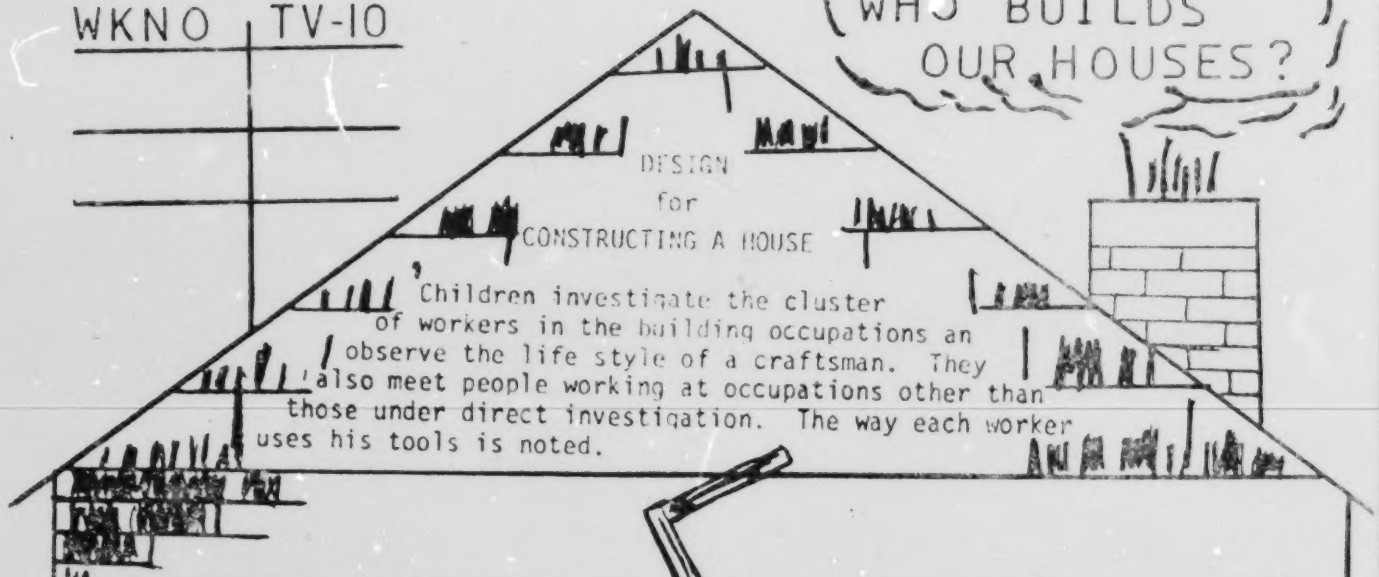
WKNO | TV-10

WHO BUILDS OUR HOUSES?



DESIGN
for
CONSTRUCTING A HOUSE

Children investigate the cluster of workers in the building occupations an observe the life style of a craftsman. They also meet people working at occupations other than those under direct investigation. The way each worker uses his tools is noted.

SPECIFICATIONS FOR VIEWING

Children should be able to:

1. List all the workers in the film and describe the work each one was doing.
2. Point out actions which show or tell how the people feel about their work.
3. Explain ways in shich the people in the film work together.
4. Judge whether people in the building trades make a good living for their families

BLUEPRINTS FOR LEARNING

When shown a picture of a building trades craftsman, pupils should be able to: a) name him, b) describe generally the work he does, c) match him with pictures of the tools he uses.

Through class discussion of the building trades craftsmen, the pupils should determine: a) whether the workers are happy with their work, b) whether they earn an adequate living, c) that the workers work together.

TRADE TALK

apprentice
brickmason
carpenter
draftsman
plumber
roofer
secretary

compass
concrete
drill
framing
hack saw
hammer
level
mortar
plane
plans
plunger
typewriter

BUILDING IN THE CLASSROOM

Books

Adamson, Gareth. MR. BUDGE BUILDS A HOUSE

Reneson, Lawrence A. HOW A HOUSE IS BUILT

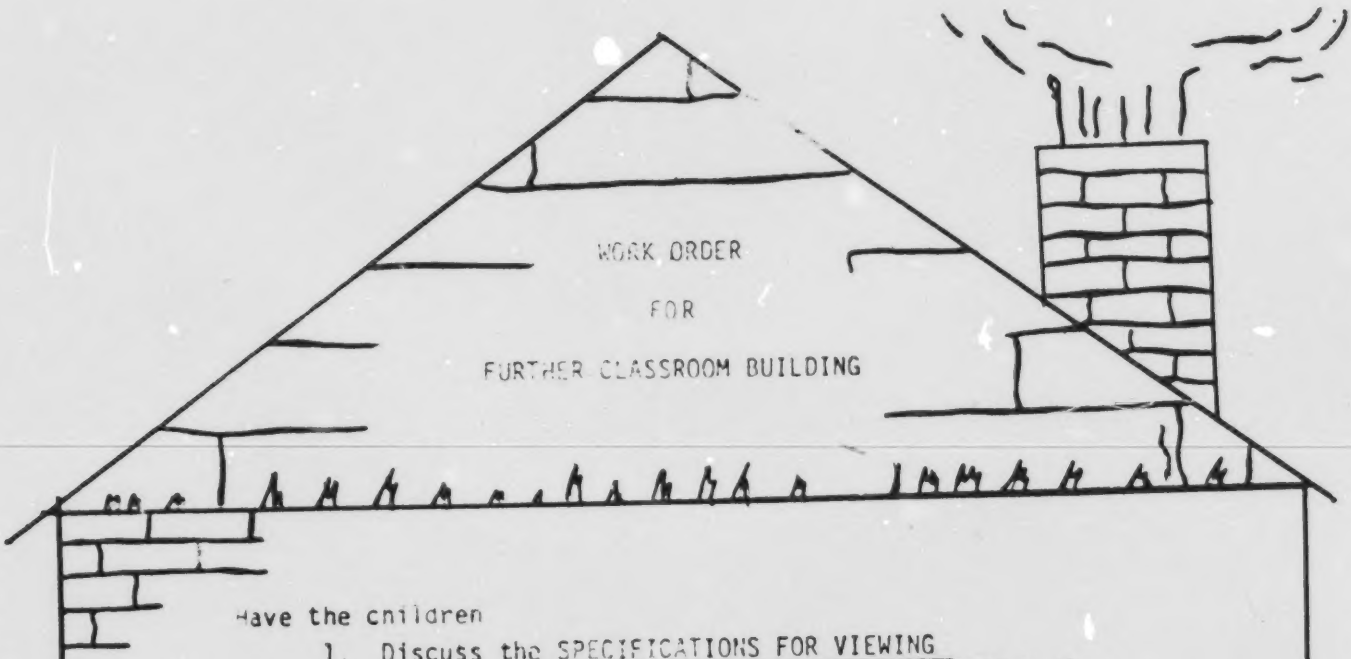
Goodspeed, J. M. LET'S GO WATCH A BUILDING GO UP

Greene, Carla. I WANT TO BE A CARPENTER

Films
(Available to Memphis City Schools)

"The New House - Where It Comes From"

"Making Bricks for Houses"



WORK ORDER

FOR

FURTHER CLASSROOM BUILDING

Have the children

1. Discuss the SPECIFICATIONS FOR VIEWING
2. Cut out pictures of workers and tools similar to those in the film. Place these in their scrapbooks and label them
3. LANGUAGE ARTS: Write a story about one of the following: a) what would happen if all the carpenters, all the plumbers, or all the secretaries stopped working, b) a funny thing happened when I tried to build a _____.
4. Divide into groups and make up and act out a play about the workers needed to produce a house. (Don't forget the lumberjack!)
5. Using the vocabulary words, work the crossword puzzles.
6. SOCIAL STUDIES: Compare the tools the workers in the film used with the tools used by the early settlers in our country
7. MATH: Work the attached problem involving the area of a house and its total cost.
8. Use any or all of the four building projects included. Obtaining materials for these projects is left up to the resourcefulness and ingenuity of the individual teacher.

LANGUAGE ARTS

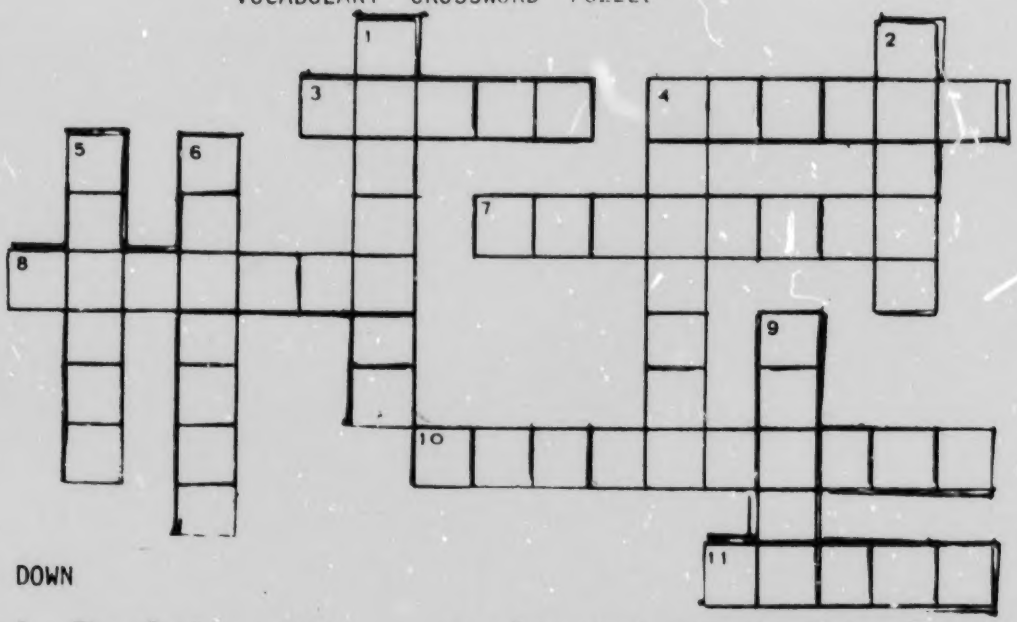
CONSTRUCTION OCCUPATIONS

Spelling Bee: From the nineteen words in "Trade Talk" have a spelling bee. Other words pretaining to construction occupations may be added if they are not too difficult for the students.

TRADE TALK

Apprentice
Brickmason
Carpenter
Draftsman
Plumber
Roofer
Secretary
Compass
Typewriter
Drill
Framing
Hacksaw
Hammer
Level
Mortar
Plane
Plans
Plunger
Concrete

VOCABULARY CROSSWORD PUZZLE



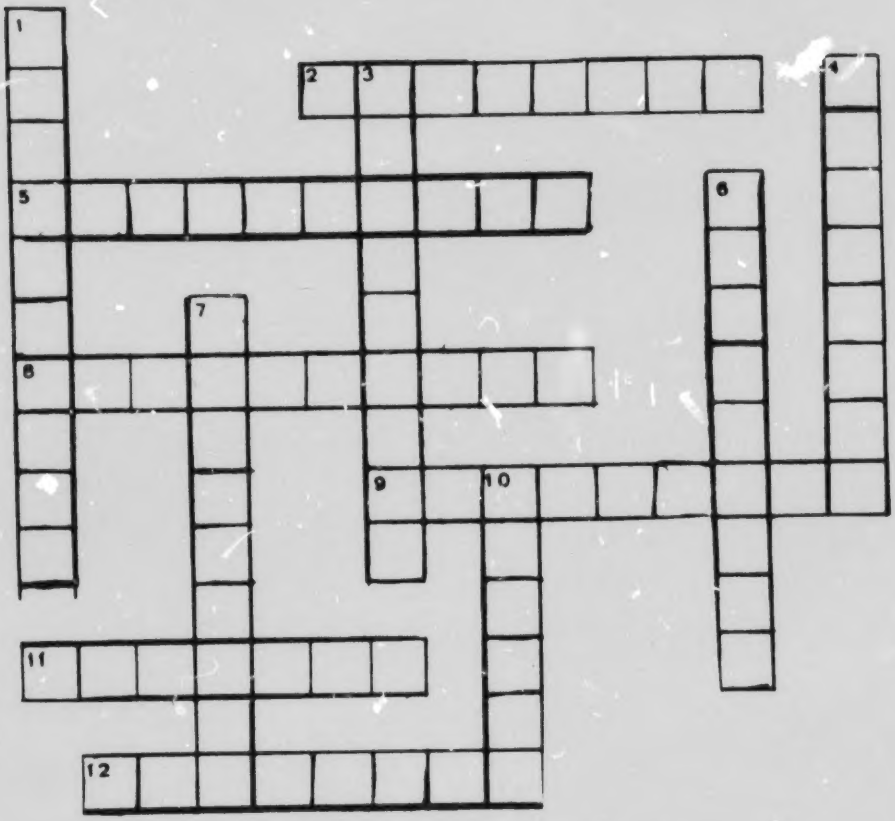
DOWN

1. The plumber uses a _____ to clear waste from the drain of a sink.
2. A brick mason uses a _____ to be sure the wall does not dip.
4. A _____ is used to cut through a pipe.
5. _____ holds the bricks together to form a wall.
6. The draftsman uses a _____ to draw a circle.
9. A _____ is used to make holes.

ACROSS

3. The carpenter uses a _____ to smooth the rough edges of wood.
4. A _____ is a pounding tool.
7. _____ is poured into forms for the floor of a house.
8. A carpenter is _____ a house when he puts in the studs and rafters.
10. The secretary uses a _____ to write letters.
11. _____ are the same thing as blueprints.

OCCUPATIONS CROSSWORD PUZZLE



Use the occupations seen in the film to work this puzzle.

ACROSS

2. A _____ serves food in the restaurant.
5. All the workers in the building trades work for a _____.
8. An _____ is a person who is learning a trade.
9. A _____ does the wood work on the house.
11. The _____ installs the bathroom fixtures in the house.
12. The _____ works through the church to help the community.

OCCUPATIONS CROSSWORD PUZZLE
(continued)

DOWN

1. A _____ works with the trowel and mortar.

2. The _____ designs a house and then instructs the draftsman in drawing up the plans.

4. A _____ measures the lot and the location of the house on the lot.

6. The _____ types and takes dictation.

7. The _____ draws in the details of the blueprint.

10. The _____ puts the shingles on a house.

N	O	S	A	M	K	C	I	R	B
N	C	N	P	R	O	O	F	E	R
A	O	A	P	E	N	Y	J	L	W
M	N	I	R	H	A	M	M	E	R
S	C	L	E	P	D	X	E	V	E
T	R	S	N	Y	E	S	D	E	N
F	E	A	T	E	I	N	N	L	C
A	T	W	I	V	E	T	T	G	H
R	E	H	C	R	R	U	L	E	R
D	I	R	E	B	M	U	L	P	R

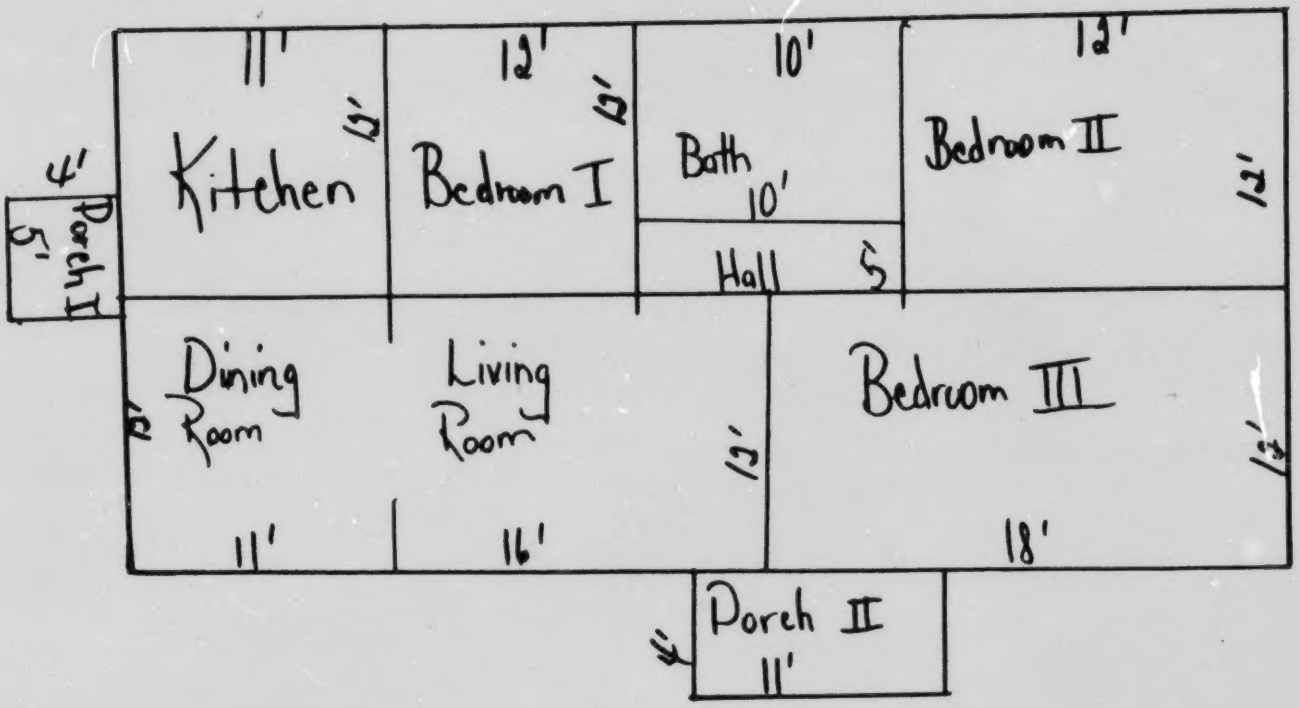
The following words are hidden above. They may be backwards, forwards, diagonal, or even diagonally backwards. See how many you can find. Circle the words as you find each one.

Apprentice
Carpenter
Concrete
Draftsman
Hammer
Level
Nails
Pen
Plumber
Roofer
Ruler
Saw
Wrench

MATH PROBLEM

CONSTRUCTION OCCUPATIONS

A carpenter needs to know how much floor space is in a house. By using the math you have learned in class, you can figure the floor space, or area, of a room or a house, too. Look at the drawing of the house. The dimension of Porch II is 4'x11' which means it is 11 feet long and 4 feet wide. To obtain the area multiply 11 feet by 4 feet; the answer is 44 square feet. So the area of the porch is 44 square feet.



MATH PROBLEM
(continued)

1. Look at the scale drawing. How many square feet of space are in each room?

   Living Room _____

   Dining Room _____

   Kitchen _____

   Bathroom _____

   Bedroom I _____

   Bedroom II _____

   Bedroom III _____

   Hall _____

2. By adding the number of square feet in each room, determine how many square feet there are in the entire house. (Don't include the porches.)

3. If the average cost to build a house is $15 for each square foot, how much will this house cost?

   Answer _____

MAKING PAPER MACHE' BRICKS OR STONES

If the teacher cannot obtain bricks for the Brick Mason's Project, the children may want to make them from paper mache'.

Materials:

Newspapers, a large bowl, wheat paste

Procedures:

1. Soak torn bits of newspaper in hot water unitl soggy (preferably over night).
2. Squeeze excess water out of the pulp.
3. Mix 3 parts pulp to one part wheat paste.
4. Knead this mixture thoroughly until free of lumps.
5. Mold the mixture into the shape of a brick or a stone and allow to dry.
6. When completely dry, paint the bricks red and the stones brown.
7. Now you are ready to assemble these to make a wall.

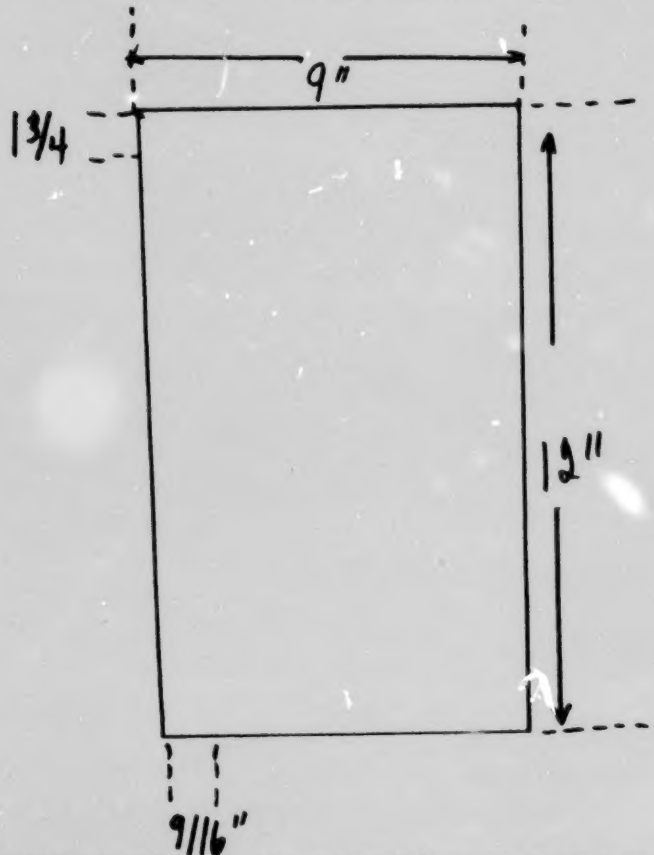
BUILDING A TRADESMAN'S NOTEBOOK

OBJECTIVE: Following the instructions on the kit, the students should be able to construct a wooden cover for a scrap book.

MATERIALS: Two 9"x12"x¼" plywood, two 2" hinges and screws, 24" strip of leather, saw, hammer, ruler, pencil, paint, sandpaper, files, ¼" drill, two 3" C-clamps, steel wool, newspapers.

PROCEDURE:

1. Assemble all tools and materials needed for the project.
2. Acquire 2 pieces of board (9"x12") and place group number on the inside of each piece.
3. On each piece of wood make a pencil mark to indicate the places to drill the holes. Locate them as shown in illustration #1.

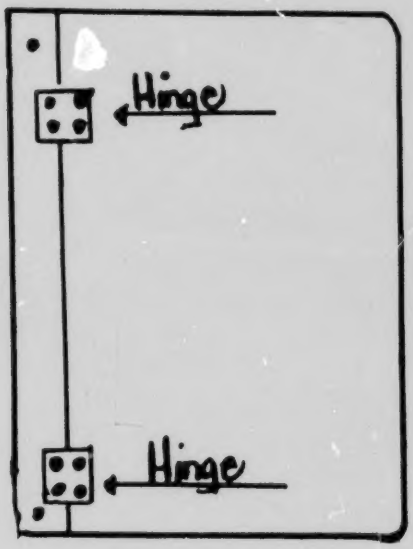


4. Drill ¼" holes in these locations on each board.

5. With a ruler, make a saw line on 1 only of the boards. This will be the front of the notebook, or part A. Place the saw line as shown in illustration #2.

6. Clamp a board fence along the right side of the saw line and saw down the fence. Sand the sawed edges unitl smooth. Round the outside edges with a file and sandpaper. See illustration #3.

7. Locate hinges on part A and A2 betweem the sawed edges and fasten with brads, using a hammer. See illustration #4.



Cut holder (leather, ribbon, string) to correct width and length (3/16" x 24").

9. Sand entire project smooth.

10. Spread newspapers. Paint and decorate.

11. Add unlined paper to use for pictures of workers and tools.

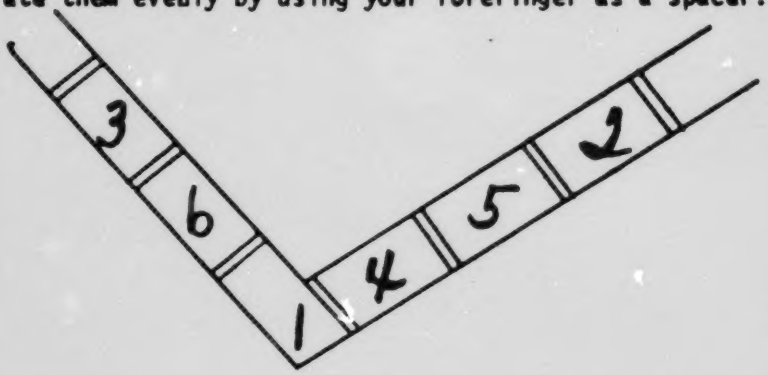
BRICK LAYING PROJECT

OBJECTIVE: With the use of this guide, a student should be able to simulate the construction of a return brick corner, common bond, three coures high.

MATERIALS: Mortar, water, trowel, plumbline, square, level

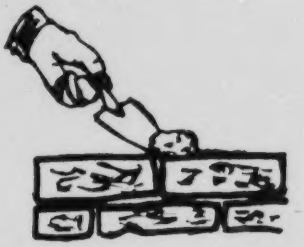
PROCEDURE:

1. Assemble all tools, and materials needed for the job.
2. Mix mortar.
3. Lay out 6 bricks, dry and square them with the tri-square. Separate them evenly by using your forefinger as a spacer.



4. Holding the trowel with the fingers under the handle and thumb on top, cut mortar and place it under bricks #1, 2, and 3.
5. Bed up in mortar bricks #1, 2, and 3 before disturbing the others. Level all three.
6. Lift brick #4 and place small amount of mortar under it and scrape some mortar between bricks #1 and #4. Repeat procedure for bricks #5 and #6.
7. Make sure the bricks are level and square.

8. With trowel, place a line of mortar on top of the bricks.



SPREADING MORTAR

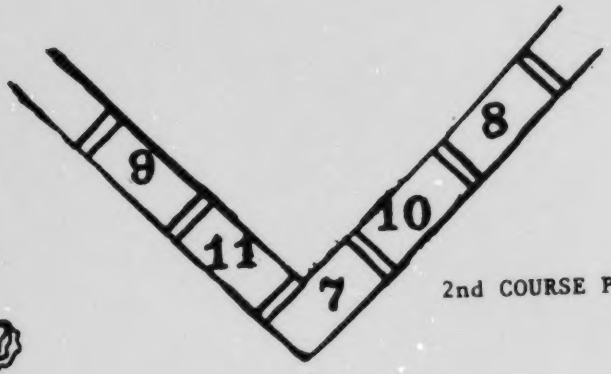
9. Place the bricks on the mortar in this manner.

PUTTING THE BRICKS
IN PLACE

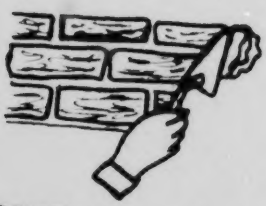
10. As in step 5, bed up in mortar bricks #7, 8, and 9. Level them.

11. Lift brick #10, place mortar under it, bed it up as in step 6. Repeat the proceudre for brick #11.

12. Using the trowel, scrape away any extra cement from the bricks so that the wall is smooth.



2nd COURSE PLAN

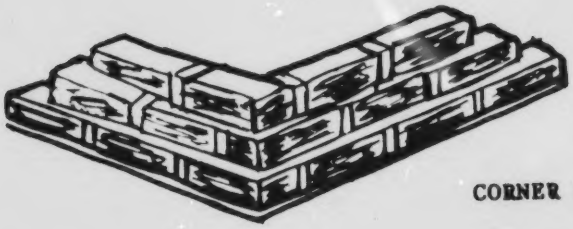


SCRAPING AWAY THE
EXTRA CEMENT

13. Repeat the procedure used in steps 5 and 10 for the 3rc course.

3rd COURSE PLAN

14. Be sure the top is level and the sides are square.



CORNER ELEVATION

DRAFTSMAN'S PROJECT

OBJECTIVES: Using the tools provides in this kit, the student should be able to draw to scale a room or a ball diamond. Also they should be able to construct a perpendicular line and a five point star.

MATERIALS: #4 pencil, paper, eraser, compass, ruler.

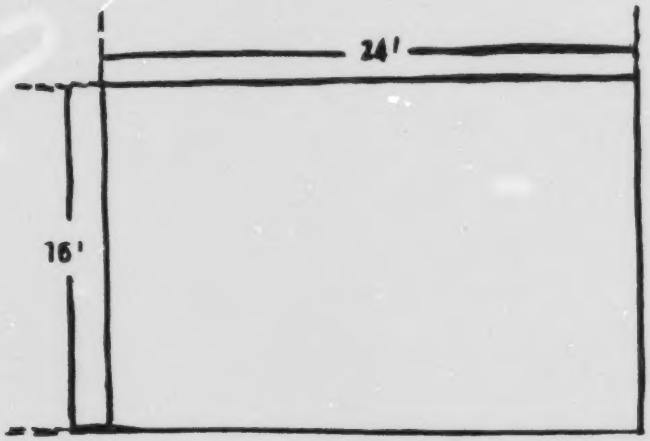
PROCEDURE:

1. Assemble all tools needed.

2. Using the ruler, measure the classroom and write down the exact measurements. Instructions for drawing a room are under A; instructions for drawing a softball and a baseball diamond are under B; and instructions for drawing a pentagon and a 5-point star are under C. You may want to draw one or all of these.

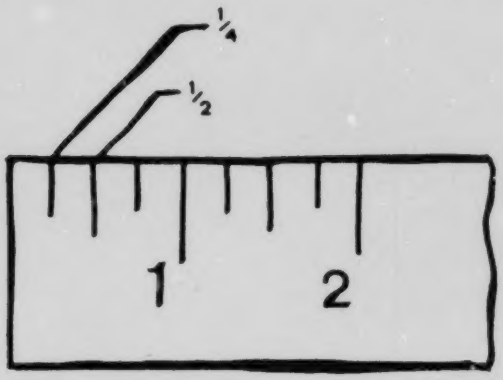
   A. A Classroom

      1) For a room, measure each side as shown.

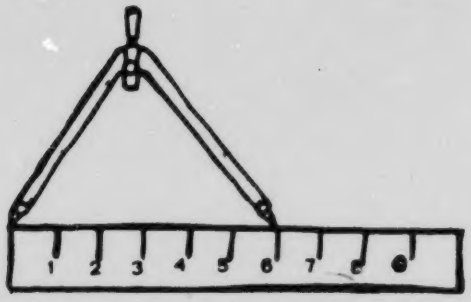


This scale drawing indicates that the room is 16 feet wide and 24 feet long.

3) When drawing a room to scale, let ¼ of an inch on the ruler represent 1 foot. According to our measurements, our scale drawing room will be 6 inches long and 4 inches wide. (6 inches would be 24 - ¼ inches; 4 inches would be 16 - ¼ inches)

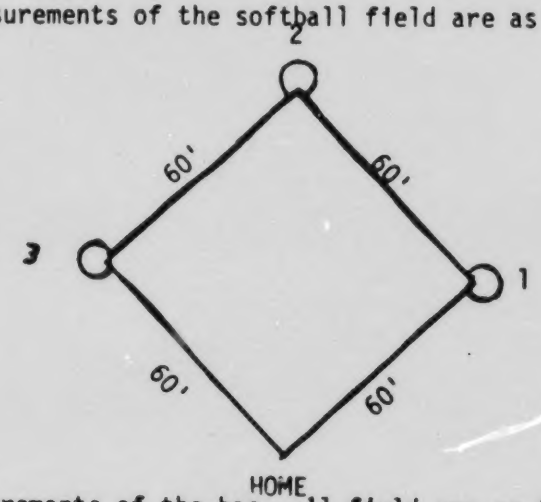


4) To draw the room place the steel point of the compass on 0 and open the compass until the pencil point touches the correct mark (in our case 6 inches.)

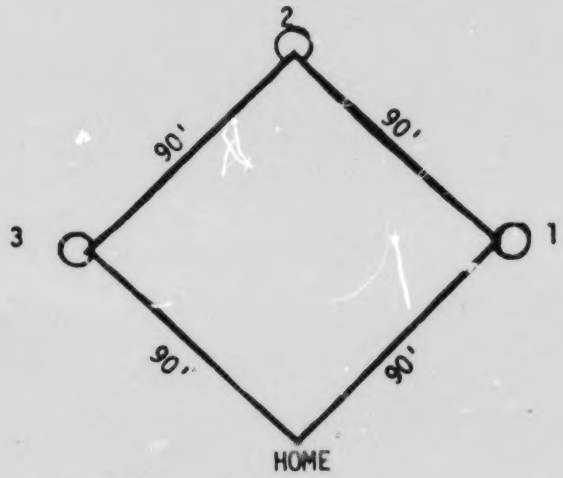


B. A softball and baseball diamond

1) When drawing a ball field to scale, use 1/16 of an inch to represent 1 foot.
2) The measurements of the softball field are as follows:



The measurements of the baseball field are as follows:

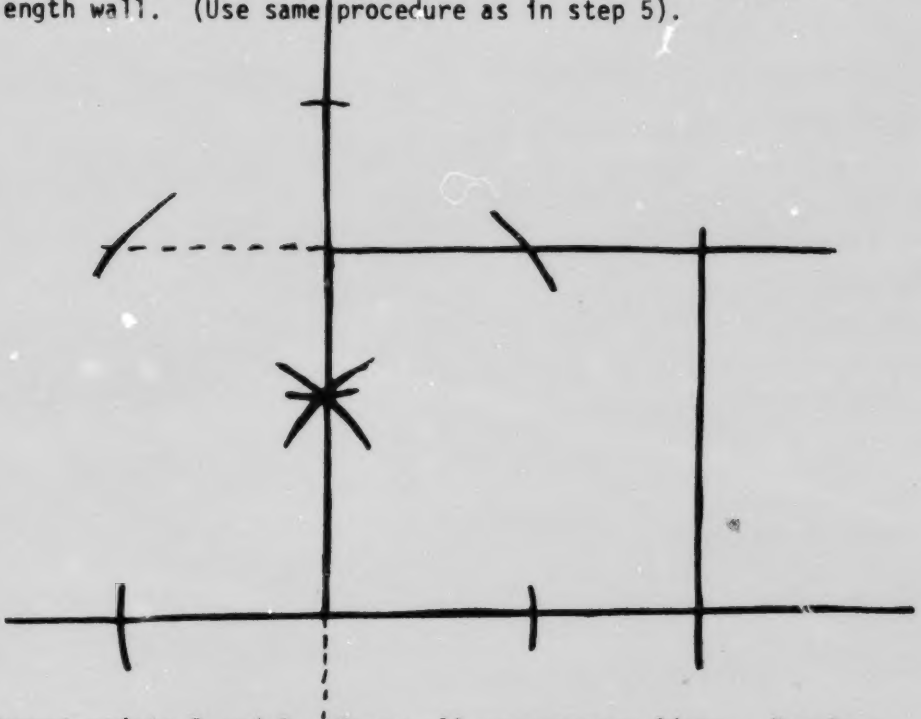


3) Construct the ball field in the same manner as the room, being sure the lines are perpendicular to each other.

4) Can you put in the pitcher's mound? The batter's box? (Use the World Book Encyclopedia for reference.)

6) With the compass, measure the scale length of your second wall. Place the point at A and mark an arc C. Line AC then becomes the width of your room as line AB is the length.

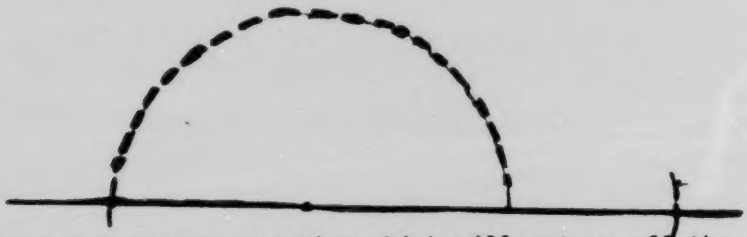
7) At point C construct a perpendicular line to become the other length wall. (Use same procedure as in step 5).



8) Connet points D and B. Erase all unnecessary lines. You have a scale drawing of your classroom. Why don't you try to do scale drawings of the desks within your classroom?

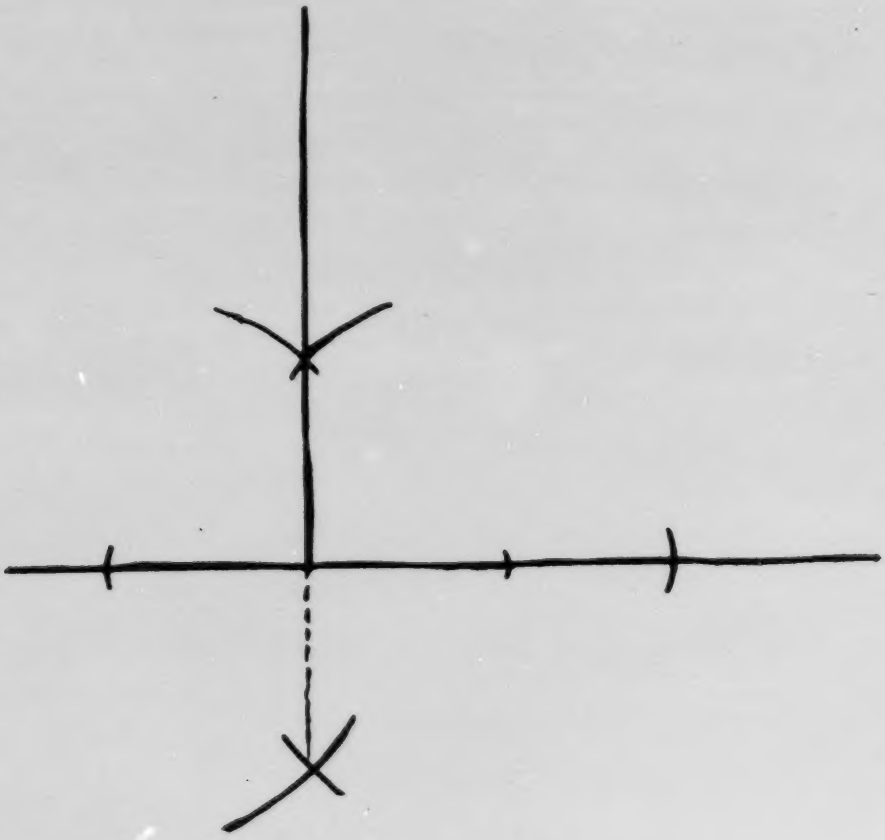
NOTE: Carpenters make a square corner by measuring 3" on side AB; estimating a perpendicular line BC 4" long; and joining the two where 5" meets AC. You try it.

5) Now to make the second wall we must use our compass to construct a line perpendicular to the first wall (A B).



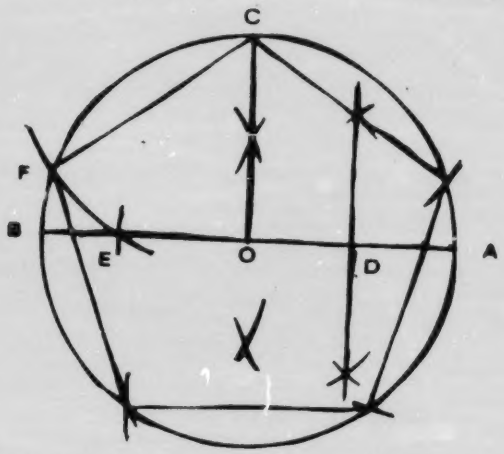
Put the compass at any setting which will not go off the page. Then with the steel point at A make an arc cut line AB on either side of A. These arcs are 1 and 2.

Open the compass slightly, put the steel point on 1, and make an arc above and below A. Leaving the compass on the same setting, place the point on 2 and repeat the procedure. Where these arcs cross are point 3 and 4. Connect points 3 and 4 through A and you have a perpendicular line.



C. Constructing a pentagon and a 5-point star:

1) Draw a circle equal to the size of pentagon desired.



2) Construct diameter, AB and radius OC perpendicular to AB.

3) Bisect line AO to find center point D.

4) Draw CE using point D as the center.

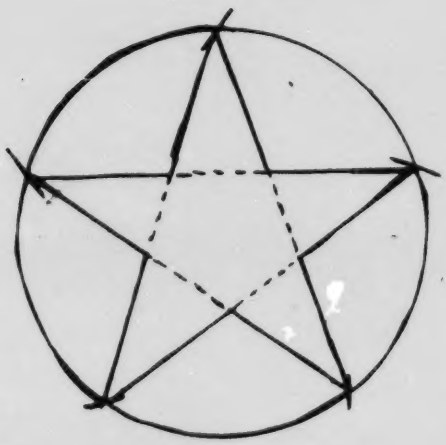
5) Draw arc EF from center point C.

6) Draw the line CF.

7) Lay off the four remaining sides, equal to CF, around the circle.

8) Connect the points around the circumference to form a pentagon.

To form a 5-point star locate the five points as above and connect the points as shown below.



PLUMBING PROJECT

OBJECTIVE: Following the set of instructions, the students should be able to replace a washer in a compression type faucet.

MATERIALS: Regular screwdriver, phillips screwdriver, wrench, seat tool, cloth, masking tape.

PROCEDURE:

1. Assemble all tools and materials needed.
2. Shut off water (main supply)

   Check points:

   a. Valve handle underneath faucet.
   b. Valve under house or just outside hous where water line enters house.
   c. Main valve near the street inside the water meter.

3. Turn faucet handle to make sure water is shut off.
4. Place tape or cloth around packing nut (see A in illustration) Using wrench, unscrew nut loose from threads.
5. Using off and on handle, unscrew valve faucet stem (see B in illustration) and remove it from water faucet housing.
6. Using screwdriver, remove faucet screw at washer end (see C in illustration). If damaged, use a hacksaw and reslot the screw slot.
7. Remove and discard old worn washer (see D in illustration).
8. Select proper sixe new washer that fits inside rim of stem. Always place flat side down against rim.
9. Replace faucet screw with screw driver.
10. Remove seat (see E in illustration) with a seat tool and wrench.
11. Check seat rim for worn places or grooves.
12. If seat is scarred ro grooved:

    a. Discard and purchase a new one.
    b. Reseat worn seat using emery cloth, shaping stone or file.
    c. Buy an inexpensive valve seat grinder. (not recommended) If seat threads are worn, you will have to purchase a pipe joint putty or ribbon to fill in the space.

13. Replace new seat or repair seat.

14. Replace packing if water has been spurting around stem.

15. Using a rag or old toothbrush, clean all parts. Make sure you leave no metal particles or grit on threaded parts where seat and washer meet.

16. Replace stem (see B in illustration) in faucet, using your hands.

17. With wrench protected with tape or cloth, tighten packing nut (see A in illustration). (You may have to use screwdriver to push packing in place first.)

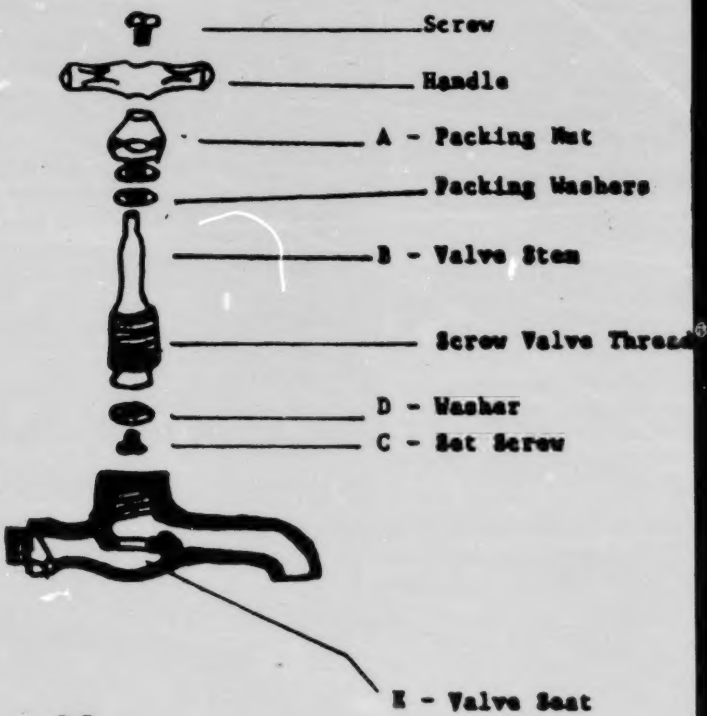
18. Turn handle to "off" position.

19. Turn on water at the main meter cutoff valve.

20. Return to the faucet and open and close the flow of water several times to see if the job is complete.

21. If it still leaks, repeat dissembling and assembling steps.

22. If leak is corrected, let water flow a few minutes out of the spout to force air out of the water line. This is what causes the pipes to pop and caugh. This causes water to flow uneven at first through the faucet.

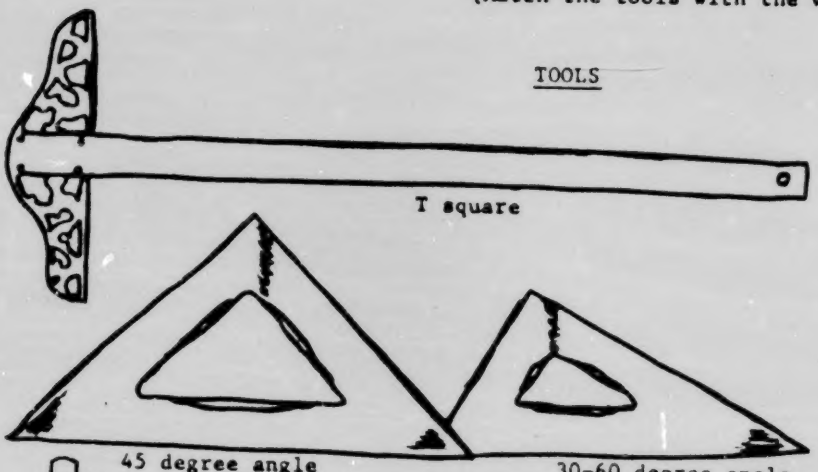


NOZZLE OR SPOUT COMPRESSION
FAUCET SIDE VIEW EXPOSED

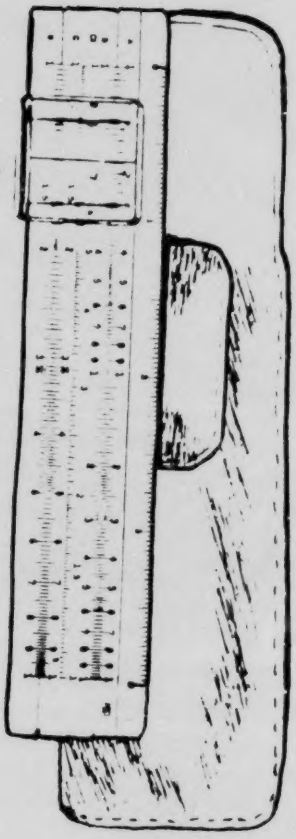
WHO USES THESE INSTRUMENTS AND MATERIALS?

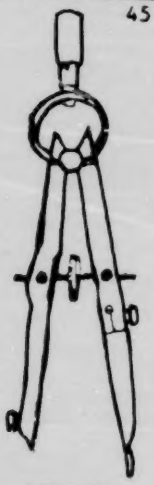
(Match the tools with the workman)

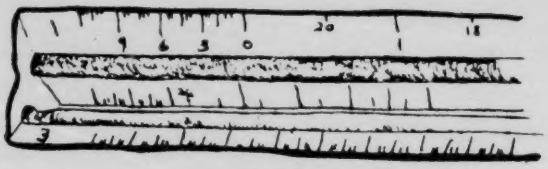
TOOLS

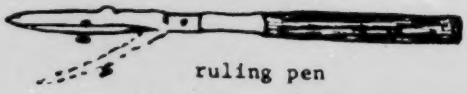


drafting table

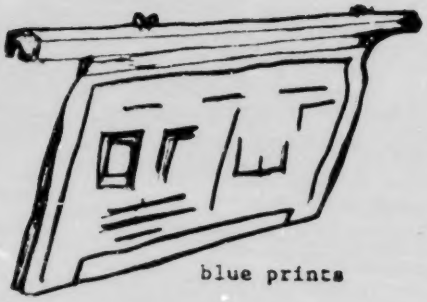

slide rule


compass


triangle scale


ruling pen

MATERIALS


blue prints

eraser

ink

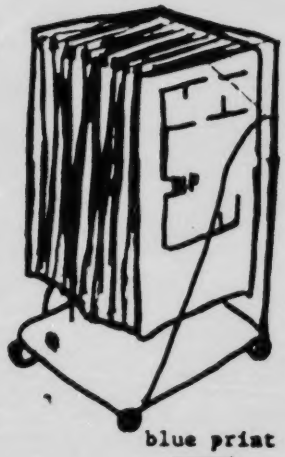
pencil

WHICH WORKER USES THESE INSTRUMENTS AND MATERIALS?

(Match the tools with the workman)

EQUIPMENT

adding machine



blue print stand

typewriter

file cabinet

telephone

stapler

SUPPLIES

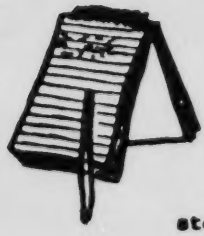
hole punch

scotch tape

pencil

stamp and ink pad

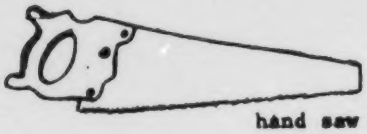
typing paper and carbon



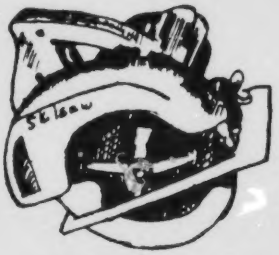
stenographer's pad

WHO USES THESE TOOLS AND MATERIALS?
(Match the tools with the workman.

TOOLS

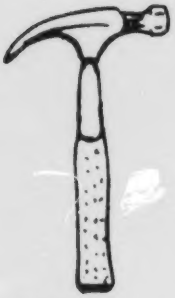


hand saw



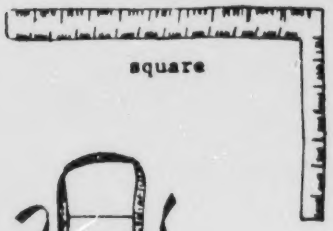
power saw

sheet rock knife



hammer

screwdriver



square

folding rule

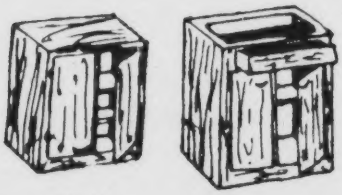
tape rule

work apron

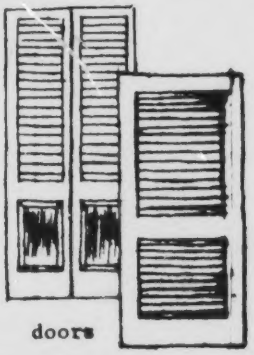
MATERIALS

nail (finishing)

nail (common)



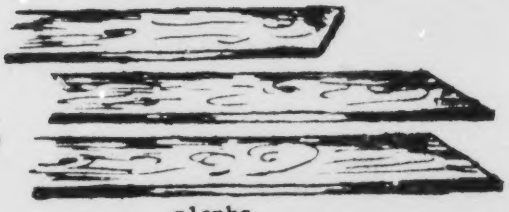
cabinets



doors

screw (roundhead)

screw (flathead)



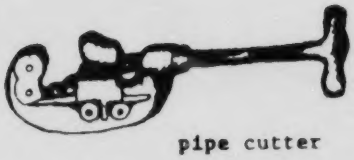
planks

WHICH WORKER USES THESE TOOLS AND SUPPLIES?

(Match the tools with the workman)

TOOLS

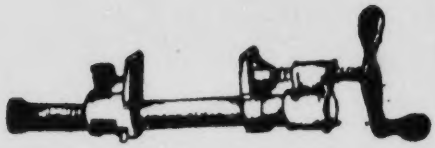
pipe wrench



pipe cutter

propane torch

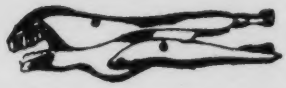
threading machine



bar clamp

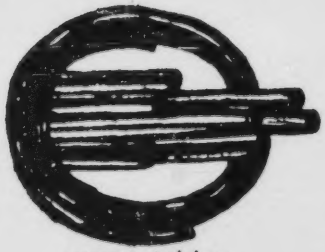
soldering gun

tin snips

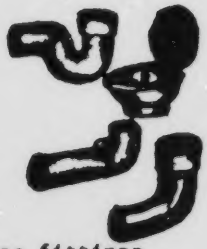


vice grips

MATERIALS

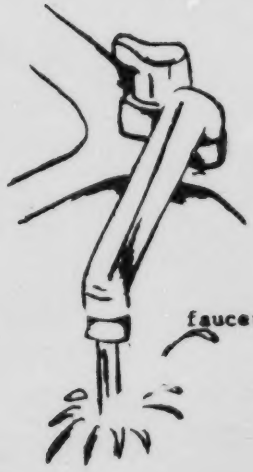


copper tubing



pipe fittings

sink traps



faucet

pipes

SPAA

HOW DO WE KEEP IN TOUCH?

A TEACHER'S GUIDE

TO

COMMUNICATIONS AND MEDIA OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGEMENTS

COMMUNICATIONS AND MEDIA OCCUPATIONS

* Mr. Franklin Schroer, Supervisor, Vocational Division, Memphis City Schools

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Miss Emily N. Beebe, Consultant, Elementary Education, Memphis City Schools

Mr. George Gunter, Graphic Communications, Northside High School

Mr. Jerry Turpin, Elementary Curriculum Specialist, Project SPAN

Mr. Joseph Neel, Memphis Publishing Company

*Committee Chairman(s)

WHO HELPS US COMMUNICATE?

PROGRAM GUIDE

What is communications? Why do we need to communicate? Who helps us communicate? The answers to these questions and more will be found as we see how, the telephone exchange operates, the newspaper is published, and the radio and television station operates.

TECHNICAL TERMS

audio
broadcast
camera
code
cold type
deliveryman
director
engineer
film
hot type
microphone
operator
photographer
pressman
printing
printing press
radio
receiver
reporter
telegraph
telephone
television
type
video

TECHNICAL REPAIRS

When shown a picture of a worker in the communications industry, pupils should be able to: a) name him, b) describe generally the work he does, c) name some of the other workers that he helps.

In a classroom discussion of the communications industry, the pupils should point out:

a) ways in which the workers help each other
b) various kinds of working conditions
c) differences in length of training for the various jobs.

AUDIO-VISUAL AIDS

Animals - How The Communicate
Charles Cahill and Associates, Inc., 14 minutes, color, 1962.

Communications - Story Of Its Development
Coronet Films, 11 minutes, B/W, 1960.

Getting The News
Encylopedia Britannica, 16 minutes, color, 1967.

Letter To Grandmother
Coronet Films, 19 minutes, B/W, 1942.

Our Post Office
Encyclopedia Britannica Films, 11 minutes, B/W, 1956.

Telegram For America
National Film Board of Canada, 22 minutes, B/W, 1953.

Television Serves Its Community
Gary Goldsmith Productions, 15 minutes, color, 1960.

Your Voice And The Telephone
Bell Telephone Films, 7 minutes, B/W, 1959.

SCRAMBLED TERMS FOR COMMUNICATIONS OCCUPATIONS

VOCABULARY LIST

Audio
Audio Engineer
Broadcast
Camera
Code
Cold Type Operator
Deliveryman
Director
Engineer
Film
Microphone
Hot Type Operator
Operator
Photograph
Pressman
Printing
Printing Press
Radio
Receiver
Reporter
Speaker
Telegraph
Telephone
Televise
Television
Transmitter
Type
Video
Video Engineer

49

Find the scrambled vocabulary in the following sentences that are about "printing".

1. The photographer puts film in the amcera _____.
2. A hotpographer _____ took pictures with his camera.
3. The pictures that the photographer took were given to the peroterr _____.
4. Our newspaper was printed on the new rintpgni spres _____ _____.
5. A oht ytep poretaro _____ made a metal plate that is used for printing newspapers.
6. The clod ytep poretaro _____ uses a computer to set type.

Find the scrambled terms in the following sentences that are about television broadcasting.

1. The television macear _____ is used to show live action.
2. A drcetior _____ is in charge of the television show.
3. An geinneer _____ controls the television signal that reaches your home.
4. udaoi _____ means the sound part of a television broadcast.
5. vdeoi _____ means the picture of the television broadcast.

Find the scrambled vocabulary in the following sentences that are about the Radio Broadcasting Industry.

1. The disc-jockey talked into the ipchmorneo _____ _____.
2. A radio is really a radio ecerierv _____.
3. The duioa ngeinere _____ _____ controls the sound that is broadcast.
4. Sound from a radio comes from the rkeepas _____.
5. adrio _____ is used to send voice and music.

Now let's see if you can list some scrambled words.

1. _____
2. _____
3. _____
4. _____
5. _____

MATH PROBLEM

Radios, televisions, and telegraphs all depend on electrons moving. Since electrons move at the same speed that light travels, it is important for scientist and engineers to know:

HOW TO FIND THE SPEED OF LIGHT

I. It is about 90,000,000 miles from the earth to the sun. It takes the light about 8 minutes to get from the sun to the earth.

II. Divide the distance from the earth to the sun by the number of minutes it takes light to reach the earth from the sun.

8)90,000,000

III. Divide the results by the number of seconds in a minute.

60)

IV. This answer will give you the speed of light in seconds. Did it come close to 186,000 miles per second?

SECRET CODE VOCABULARY

Since the beginning of written languages, man has invented ways to communicate with others using codes and ciphers. One of the easiest ways to send and receive codes is to use a code wheel.

To assemble your secret code wheel, cut the circles from the tow sheets. Punch a small hole in the centers of the two wheels and connect them using the brad. You should be able to read both alphabets at one time. Notice that by holding the larger wheel, you can turn the smaller wheel with your thumbs.

To decode words using your wheel, you move the small wheel only once. Let's try to decode a word.

code letter (B) S B E J P

To decode the above word, move the code letter (B) on the small wheel under the A on the larger wheel. Hold the two wheels in place. Find the "S" on the wheel; above it is the letter "R". Find the letter "B" on the small wheel; above it is "A". Find the remaining letters on the small wheel and the actual letters are above the large wheel. SBEJP become RADIO.

Now see if you can decode the following words using the secret code wheel and the code letters given.

53

CODE LETTER	CODE WORD
R	JVTIVKRIP
M	OXQDW
P	INETIGXIER
S	LWDWNAKAGF
V	OZGZBMVKC
F	YJQJUMTSJ
Q	ZBSXDSNG ZPOCC
O	XUZQYMZ
C	DPYKCKYL
P	ZAPCLEZC
I	KWAJNAUE JWHJWKWFLSLANW
K	YDIJQBBUH
M	CEVAGF
S	KIUMZIUIT
W	JPSSVQER
Z	BVEJP
G	YHACHYYL

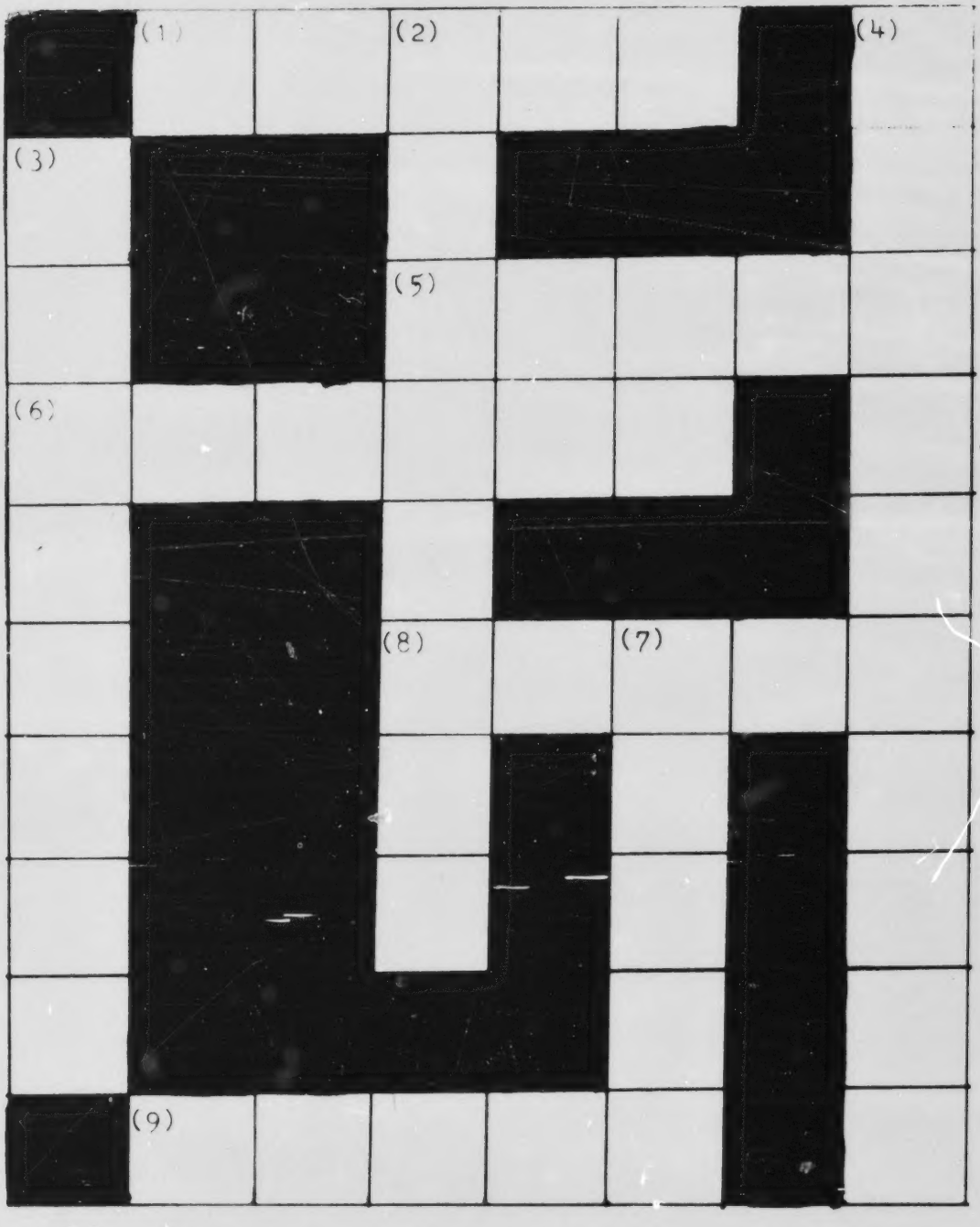
CUT ALONG THE OUTER CIRCLE

55

T E L E G R A P H M
E T N V T S A N P I
L O E G I A L D R C
E N I L I D K N I R
V A B D E N E I N O
I Q T W U P E O T P
S S E R P A H X Y H
I D I R E C T O R O
O W A R E M A C N N
N A M A R E M A C E

- The following words are hidden above. They may be backwards, forwards, diagonal, or even diagonally backwards. See how many you can find. Circle the words as you find each one.

Radio
Video
Press
Camera
Engineer
Television
Director
Telegraph
Telephone
Cameraman
Microphone
Print
Audio
Ink



ACROSS

1. The music or voice part of a television broadcast.
5. A device that receives voice and music only.
6. A device that takes pictures.
8. The metal mold used for printing.
9. Used in cameras to record images.

DOWN

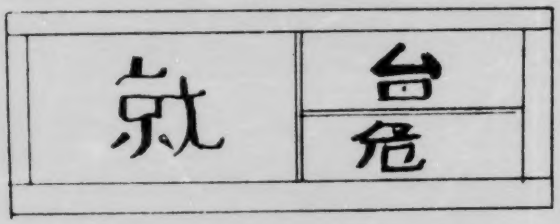
2. The person in charge of a radio or television production.
3. A radio is also called a _____.
4. A picture is called a _____.
7. Newspapers are printed on a _____.

HOW PRINTING BEGAN

The first real printing took place in China. A skilled stone cutter cut each character into a flat stone, then soot was sprinkled over the carvings. Finally, the stone was pressed onto a piece of paper. The soot was deposited on the paper.

Later, a block of wood replaced the stone. Wood was easier to carve and held the soot better. There are pieces of Chinese printing that were done with wood blocks over 1200 years ago, in musuems today. For centuries the only method of printing was using wood blocks.

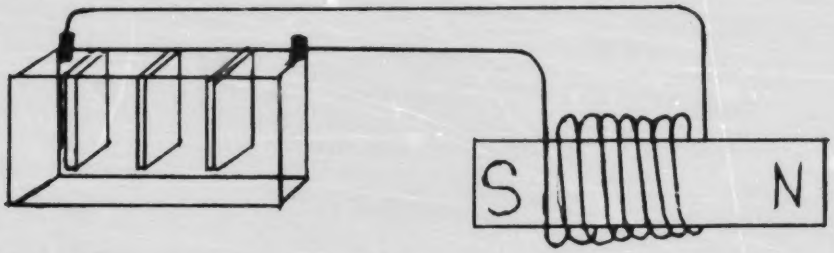
About 800 years ago, Pi Sheng, a Chinese printer decided that he could save time by carving each character separately and putting them into a wooden frams. He would then use the wooden frame to print on paper. Instead of using each block once and throwing it away, Pi Sheng could now take a frame apart and rearrange the characters to be used again.



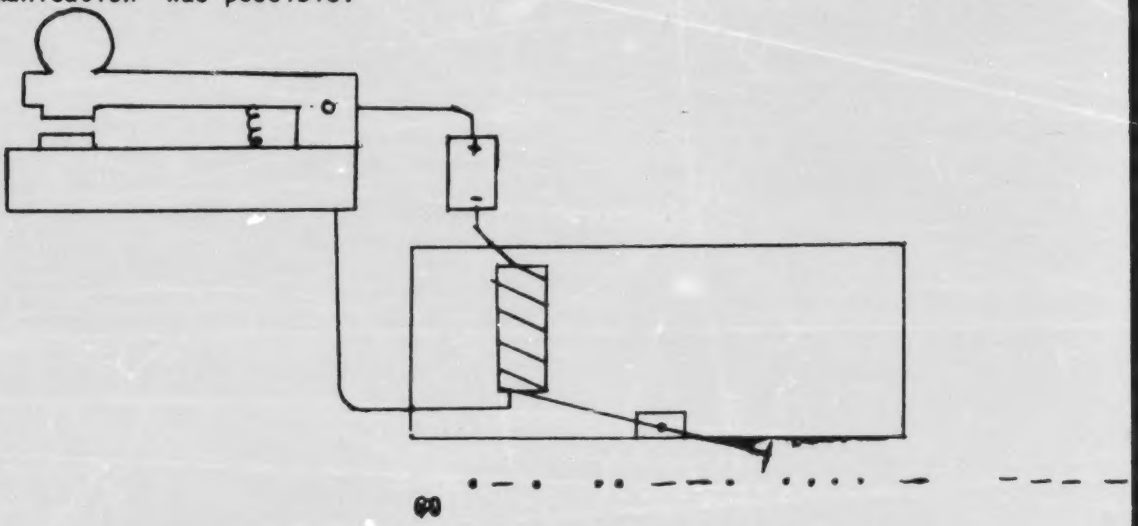
The next improvement was made in Korea. After the frame was made, it was pressed into fine wet sand. The wet sand held the impression until hot liquid lead was poured over it. When the metal cooled, the entire sheet of raised letters was used to print a page. This was easier to use than a frame full of single letters.

HOW THE TELEGRAPH BEGAN

During the early years of the nineteenth century, scientists the world over began experiments with the newly discovered electricity. They found that it could make a spark, like lightning. They also discovered that a coil of wire with electricity passing through it became magnitized. For a long time, scientists wondered what they could do with this new magnet that could be turned on and off.



For almost one hundred years, scientists attempted to put this new discovery to work, but failed. In the eighteen thirties, an electric telegraph was finally constructed in England, but it was not until a few years later that an American, Samuel Morse, invented a code of dashes and dots that the electric telegraph began to be practical. To begin with, the telegraph operators did not listen to the dots and dashes, but they were recorded on a sheet of paper that moved under the telegraph. As telegraph operators became more use to the sounds of the clicking machine, they began to write the message as they heard the clicks instead of waiting for the sheet with the dots and dashes marked. Before long, telegraph lines were strung across the country side, between cities. At last instant communication was possible.



By the year 1900, the entire world was criss-crossed with telegraph wires, some even running under the large oceans. Today instead of listening to dots and dashes, machines change the code into letters automatically. The teletype looks like a big typewriter, but is really an automatic telegraph operator. Even in our modern times, the telegraph is still used.

INTERNATIONAL MORSE CODE

A	·–	N	–·
B	–···	O	–––
C	–·–·	P	·––·
D	–··	Q	––·–
E	·	R	·–·
F	··–·	S	···
G	––·	T	–
H	····	U	··–
I	··	V	···–
J	·–––	W	·––
K	–·–	X	–··–
L	·–··	Y	–·––
M	––	Z	––··

CODE OF SIGNALS FOR FOOTBALL OFFICIALS

At major college football games there are usually five officials. They are the referee, umpire, linesman, field judge, and back judge.

The signals shown on these two pages are used by the officials.

1. First Down

2. Ball Dead; If hand is moved from side to side: Touchback

3. Personal Foul

4. Unsportmanlike Conduct

5. Forward Pass or kick catching interference

6. Ball Illegally touched, kicked, or batted

Notice that some of the signals look pretty much alike. For example, the signal for a "First Down" and the signal for a "Personal Foul" might be mixed up by someone who was not watching carefully.

7. Offside

8. Delay of Game

9. Illegal Procedure, Position, or Substitution

10. Touchdown or Field Goal

11. Time Out

12. Safety

13. Illegal Motion

14. Illegally Passing or Handing Ball Forward

15. Illegal Use of Hands and Arms

If you do not know what all the football terms on these pages mean, you can find out by looking in a football rule book. Or you might ask a football coach or player to tell you what they mean.

MAKING PAPER

OBJECTIVES:

The student will simulate the making of paper.

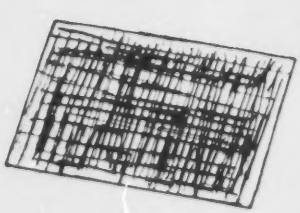
MATERIALS:

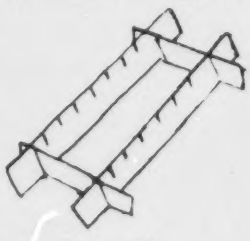
Fine meshed wire screen, a flat pan, a forming rack or mold, a 10 quart basin, 30 facial tissues (newspaper torn in strips and not wet strength), 2 sheets of blotting paper (news print), laundry starch, 1 tablespoon, an egg beater, a rolling pin, an electric iron.

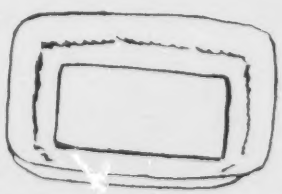
PROCEDURE:

1. Tear sheets of tissue (or newspaper) and place in basin. Pour in starch and additional water to make about 10 quarts. Beat until thoroughly mixed.

2. Prepare the paper machine, consisting of pan (a biscuit pan, refrigerator tray, aluminum frozen food container can be used), screen and forming rack. Trim the screen to fit inside the pan. Then cut out the bottom of the pan, leaving a ledge of about one-half inch wide to support the screen. The forming rack can be made from a second pan that will fit inside the first. Cut out the entire bottom, leaving only the sides. This pan and rack came from an old refrigerator tray.

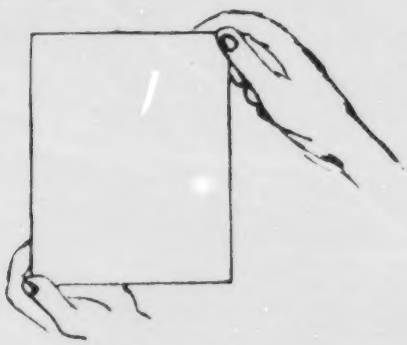




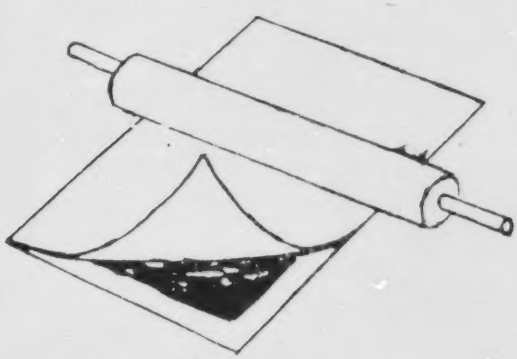


3. Holding forming rack firmly on the screen and dip sidewise into the pulp mixture.

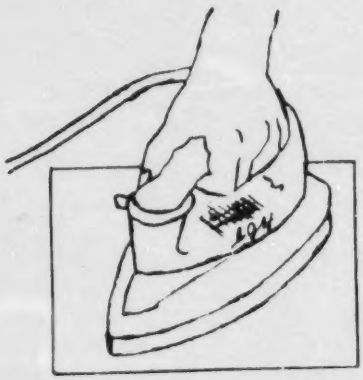
4. Clean off the excess pulp outside forming rack. Lift out the screen on which the pulp has formed.



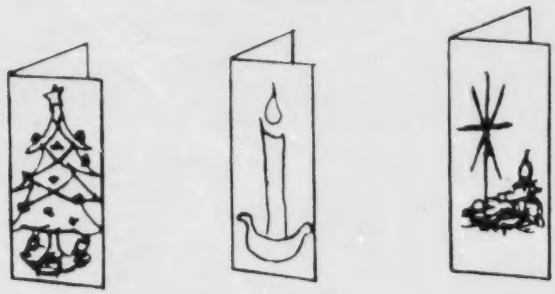
5. Dry the screen and wet sheet of pulp between two pieces of bioitinh paper. The sheet will stick to them. Press out excess water with rolling pin.



6. Finally, iron-dry (not too hot) the sheet, still between the blotters. Trim the edges with scissors. You now have a sheet of hand made paper.



7. Allow each child to print a card from a piece of the paper.



TELEGRAPH KEY

OBJECTIVES:

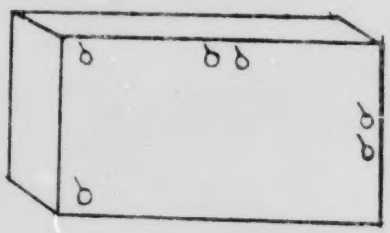
Using the materials provided, the student should be able to duplicate the discovery made by Samuel Morse when he built his first working telegraph.

MATERIALS:

1 - block of wood 2" x 4" x 6"
1 - dry cell battery (D-cell)
1 - tin can (not aluminum)
50 feet #22 enameled wire
6 large nails
2 small nails
wire pliers
hammer

PROCEDURE:

1. Nail the six large nails into the block of wood as shown.



A. Two nails are placed one inch down and 3/4 inches in both (A & B). Nail these in until 3/4 inches from the board.

B. Put 2 nails close together 2 1/2 inches down and 3/4 inches inside on the right (C & D). Leave 2 inches of the nail above the board.

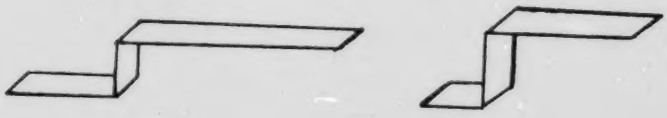
C. Put 2 nails centered 1 inch from the bottom. Nail until the head is 1/4 inch from the board (E & F).

II. Cut two pieces from the tin can as shown below:

A. Cut two pieces 1 inch wide and 3 inches long.

B. Check the metal for any loose, sharp pieces.

III. Form the pieces of metal as shown.



IV. Clean 5 inches off the end of the wire until it appears shinny.

A. Wrap this around the nail B. Begin wrapping the wire around nails A & B. When there is about 6 inches left, cut the wire and clean the end.

B. Clean the ends of the 12 inch piece of wire.

C. Leave the end of the wire from the coil free, we will connect this later.

D. Take the 6 inch piece of wire and wrap one end around nails E & F and wrap the other end around nail A.

V. Place the piece of metal "A" to the left of nails C & D so that the top is above C & D. If the nails are too tall, hammer them further into the board.

A. Using a small nail, attach this piece into place.

VI. Place metal strip B so that the end of the long side is above nails E & F.

A. Take the other small nail and nail it half way in.

B. Wrap the piece of clean wire from the coil around this nail and finish hammering it in.

VII. Insert the battery (either way) between nails A & B.

A. By pressing the metal strip "B", the tapper should move.

B. Adjust the strip so that it hits the nail when the key is pressed and pulls away when it is released.

SUGAR BOX TELEPHONE TRANSMITTER

OBJECTIVES:

The students should be able to employ their knowledge of science to construct a simple telephone transmitter.

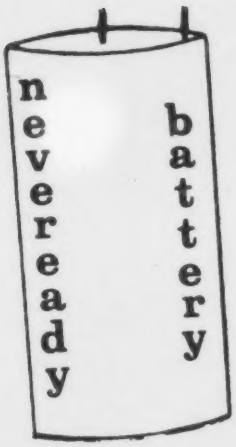
MATERIALS:

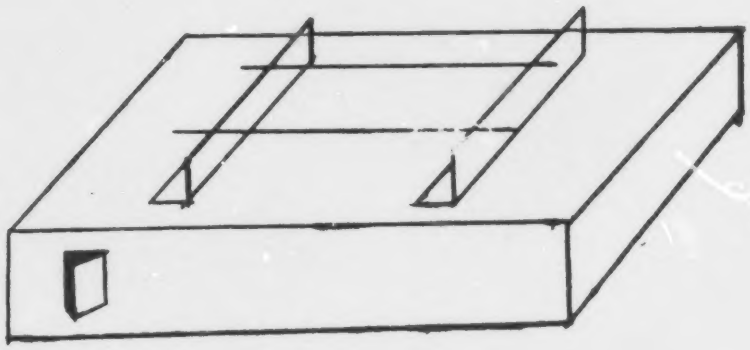
Two pound sugar box, aluminum-foil pie plates, pencil leads, two paper clips, earphone, bell wire, tape, and dry cells.

PROCEDURES:

Place the aluminum pieces on the top of the box, and fasten them with the two paper clips. (Be sure they are not separated by more than 3 inches.) Connect one wire to one side of the receiver and the other wire to one side of the batteries. Connect the other side of the battery to the unconnected terminal on the receiver.

Now place two pencil leads across the pieces of metal. By speaking into the box, your voice should now be heard on the receiver.





WHO WORKS IN OFFICES?

A TEACHER'S GUIDE

TO

BUSINESS AND OFFICE OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGEMENTS

BUSINESS AND OFFICE OCCUPATIONS

* Mr. Bill Wilhelm, Consultant, Special Programs, Vocational Division, Memphis City Schools

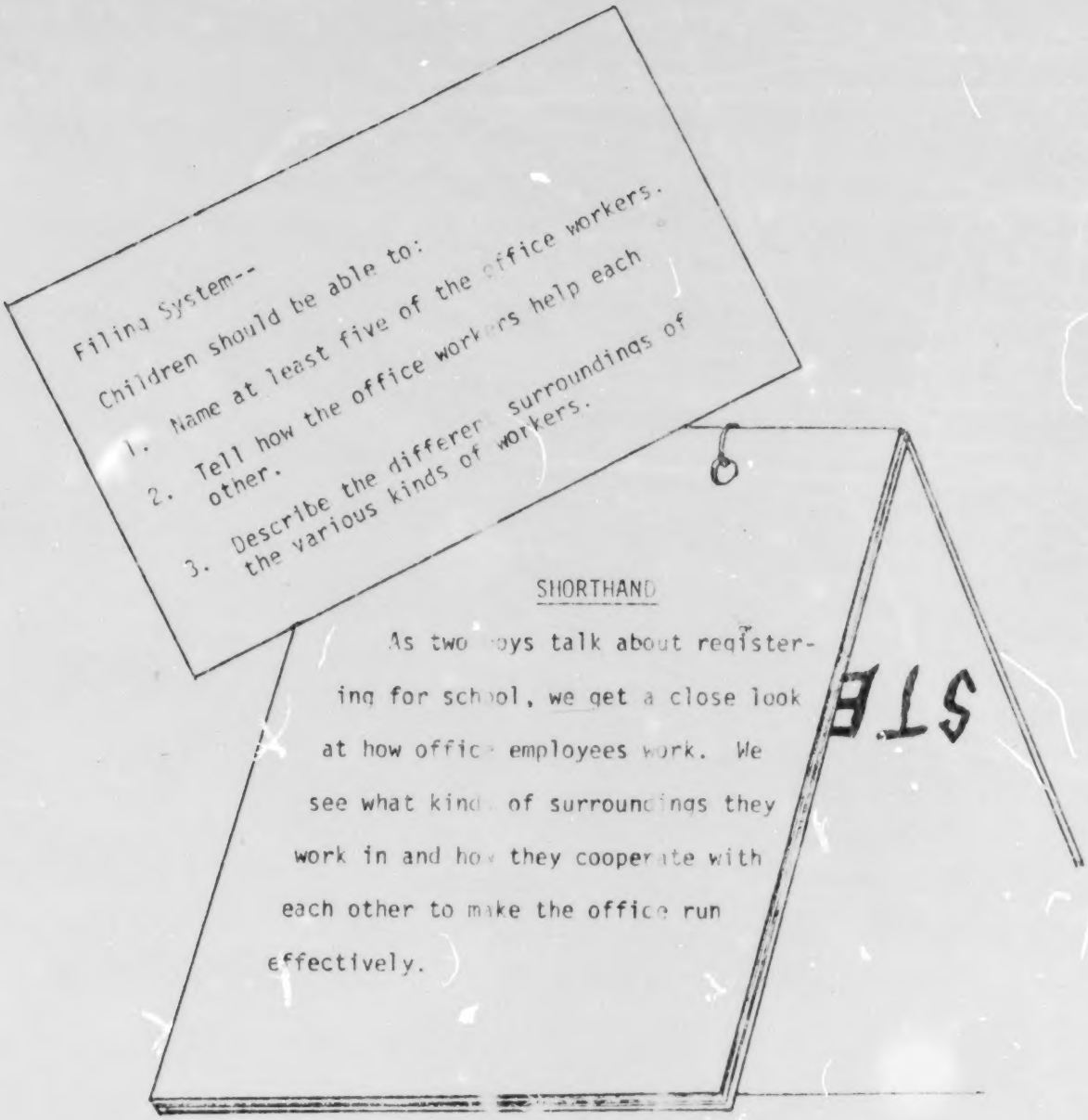
Mrs. Brooks Culp, Secretary, Life Insurance Company

Mrs. Ester Rice, Hyde Park Elementary

Miss Janice Wright, Student, Hyde Park Elementary

* Mr. Ed. French, Consultant, Office Occupations, Vocational Division, Memphis City Schools

* Committee Chairman(s)


Filing System--
Children should be able to:
1. Name at least five of the office workers.
2. Tell how the office workers help each other.
3. Describe the different surroundings of the various kinds of workers.
SHORTHAND
As two boys talk about registering for school, we get a close look at how office employees work. We see what kinds of surroundings they work in and how they cooperate with each other to make the office run effectively.
STB

DICTATION

Adding Machine	Files
Alphabetical Order	File Clerk
Clerk	Mailroom
Clerk-typist	Mailroom Employees
Computer	Program
Computer Operator	Secretary
Computer Programmer	Shorthand
Bookkeeper	Typewriter
Dictation	Typist

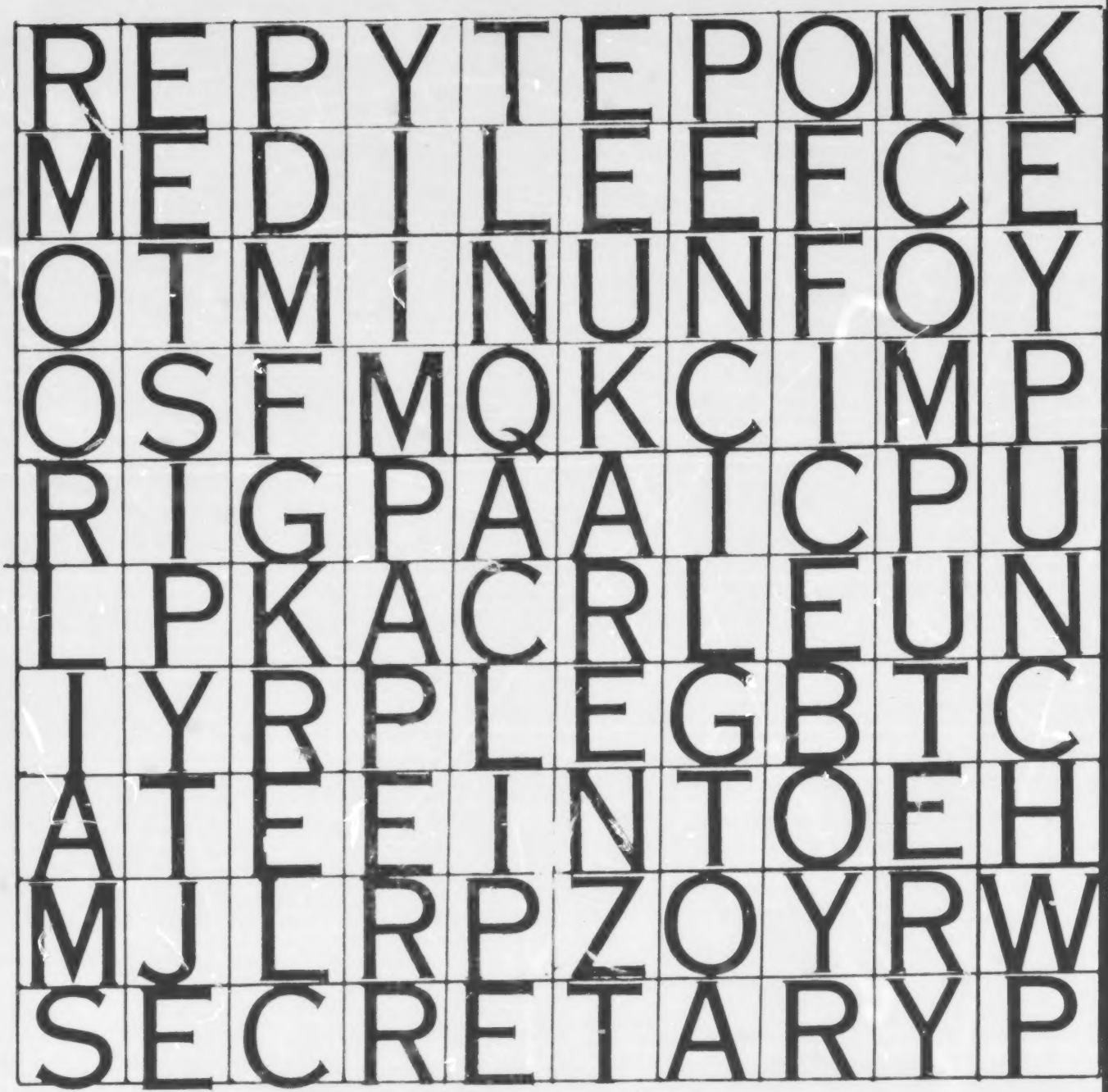
SPAN PROJECT
NORTHSIDE HIGH SCHOOL
1212 VOLLENTINE
MEMPHIS - 274-1381

DATE January 4, 1972

BUSINESS FOLLOW-UP

1. Use the vocabulary words in a sentence of your own.
2. Work the puzzles on pages 4 - 10.
3. Write a story about the office worker you would like to be.
4. Language Arts: Play What's My Name? Write the occupations shown on the film on slips of paper. Allow a student to select a slip of paper. The student will imitate the duties of the person on the slip of paper. The student who guesses the correct name gets to choose the next slip of paper and imitate the occupation.

JAMES E. HUGUELEY



The following words are hidden above. They may be backwards, forwards, diagonal or even diagonally backwards. See how many you can find. Circle the words as you find each one.

Secretary	Computer	Mailroom	Pencil	File
Typist	Programmer	Keypunch	Pen	
Clerk	Office boy	Paper Clip	Type	

LANGUAGE ARTS

Computers think in numbers instead of letters, they can read and write numbers--see if you can decode the message below from this code.

01 - A	08-- H	15 - O	
02 - B	09 - I	16 - P	22 - V
03 - C	10 - J	17 - Q	23 - W
04 - D	11 - K	18 - R	24 - X
05 - E	12 - L	19 - S	25 - Y
06 - F	13 - M	20 - T	26 - Z
07 - G	14 - N	21 - U	

20 - 08 - 05 / 19 - 05 - 03 - 18 - 05 - 20 / 01 - 07 - 05 - 14 - 20 /

03 - 01 - 13 - 05 / 14 - 15 - 18 - 20 - 08 / 20 - 15 / 19 - 16 -

25 / 15 - 14 / 20 - 08 - 05 / 01 - 18 - 13 - 25 - 19 / 13 - 15 -

22 - 05 - 13 - 05 - 14 - 20 - 19 /. ___ ___

Write your decoded message here:

Did you get the message? If you did, see if you can encode this message.

"We have captured the spy; his name is Fred Caldwell."

Write you secret coded message here:

Novembre 16, 1972

Deer Students,

Somewhere in this letter are ten spelling errores. See if you can find all tin. Most of them are eazy to find; some are very hard too find.

If you can find all ten, you are very good at locateing spelling errors.

Sincerly,

Jerry Turpin
Projet SPAM

File clerks must be able to alphabetize words quickly and accurately. Take just a few moments and see if you can put these words in alphabetical order.

1. secretary _____ 4. typewriter _____ 7. manager _____
2. clerk _____ 5. adding machine _____ 8. accountant _____
3. office _____ 6. keypunch _____ 9. bookkeeper _____

How well did you do? If you thought those were easy, try these. They are a little harder.

1. Secretary _____ 4. typing _____ 7. Programmer _____
2. computer _____ 5. clerk _____ 8. office _____
3. typewriter _____ 6. typist _____ 9. employee _____

The following are even harder. See how well you do.

1. employee _____ 4. typist _____ 7. dictate _____
2. encode _____ 5. employer _____ 8. typewriting _____
3. typewrite _____ 6. decode _____ 9. dictation _____

Business and Office Occupations
Scrambled Terms
Language Arts
(Continued)

1. A clerk-typist uses a yertwitper _____ to type letters.

2. A elif _____ is where records for the office are kept.

3. An dinaqd achmien _____ is used by the bookkeeper to add columns of numbers.

4. The ekpuycnh _____ machine punches holes in computer cards.

5. A opcumert _____ uses key-punched cards to get its information.

6. A lcrek-tpisyt _____ types letters, files information and performs other duties in the office.

7. The omcpteur-pogarmemr _____ makes the computer work.

8. The aimlorom _____ workers sort and deliver mail to the offices.

9. The very earliest type of office equipment was pne and appre _____ _____.

10. ilfes _____ are arranged in alphabetical order.

MATH PROBLEM

I. It takes Judy 35 minutes to type a report for her boss Mrs. Johnson. She then types fifteen letters that require 7 m 7 minutes each. If she started to work a 9:00 A.M., what time did she finish her morning work?

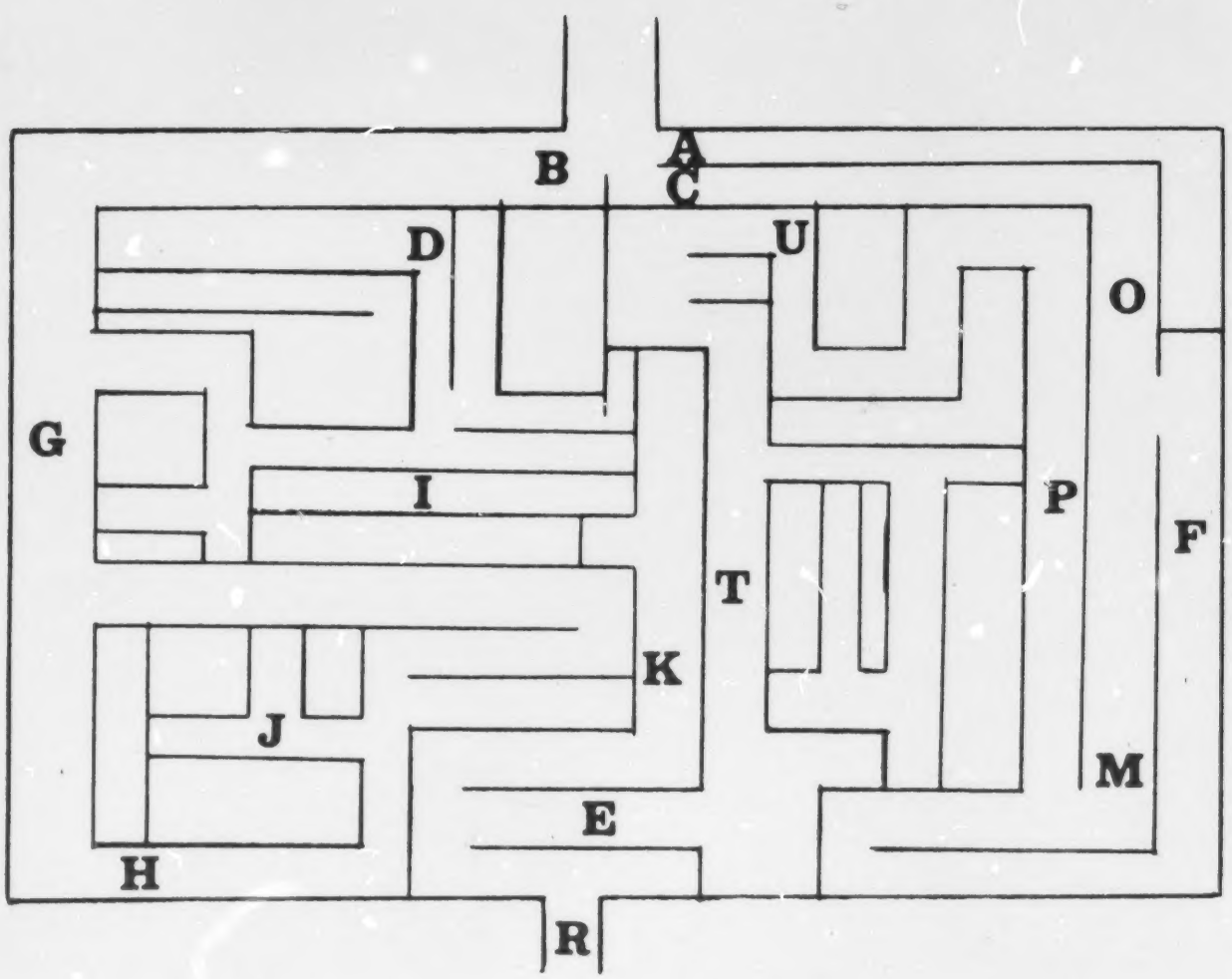
II. If Judy makes $3.00 per hous and she works 8 hours per day, how much does she make each week? (5 days)

III. Judy made $120.00 last week. The government took $20.00 for taxes and $15.00 for her Social Security. How much did she have left to spend?

Puzzle Flow Chart

Computer programmers write out a flow chart that shows how the computer is to work. See if you can follow directions to finish this puzzle.

Begin at the top and find your way to the outlet at the bottom. Keep a record of the letters you pass. What do they spell? _____



CONSTRUCTING OCCUPATION CARDS

OBJECTIVES:

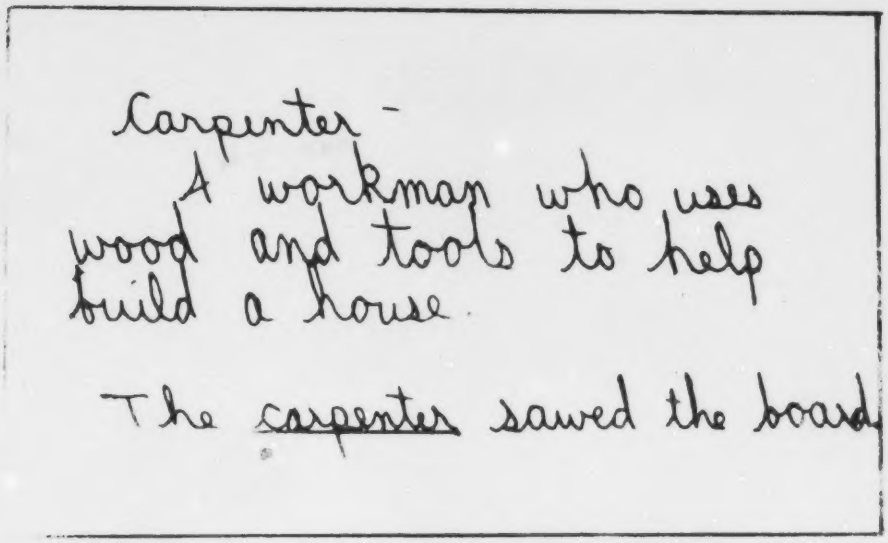
Making use of the proper materials, the students should be able to develop a method of storing information which can be retrieved upon demand. This system which is also commercially available, will demonstrate logical sequences and elementary computer techniques.

MATERIALS:

Materials needed will be: 200 4" x 6" index cards, list of occupational words, dictionary, pen or pencil, hole puncher, and scissors.

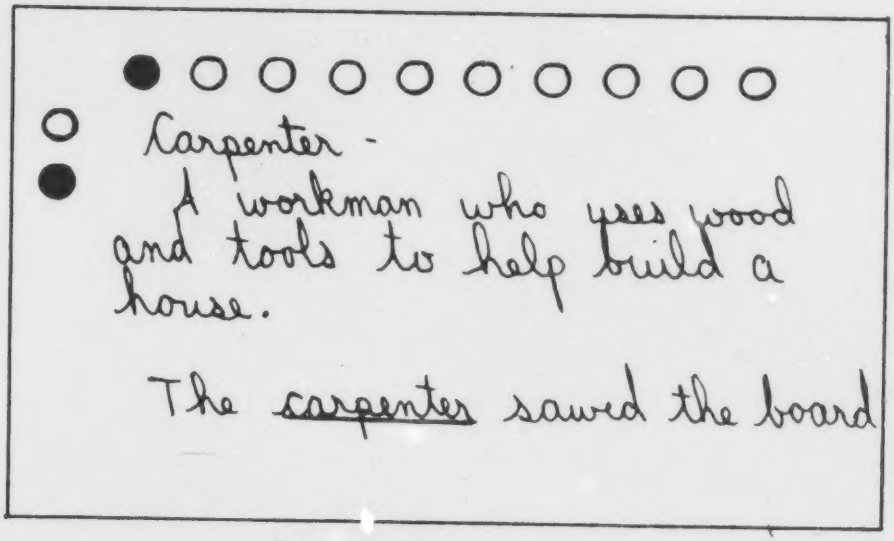
PROCEDURE:

Using the two hundred cards provided, make ten cards for each occupational grouping. The list on page 13 gives the two hundred basic words. More may be added by using 4" x 6" index cards. Each card must be similar to the example below.



How to mark the occupational cards using the occupational Template.

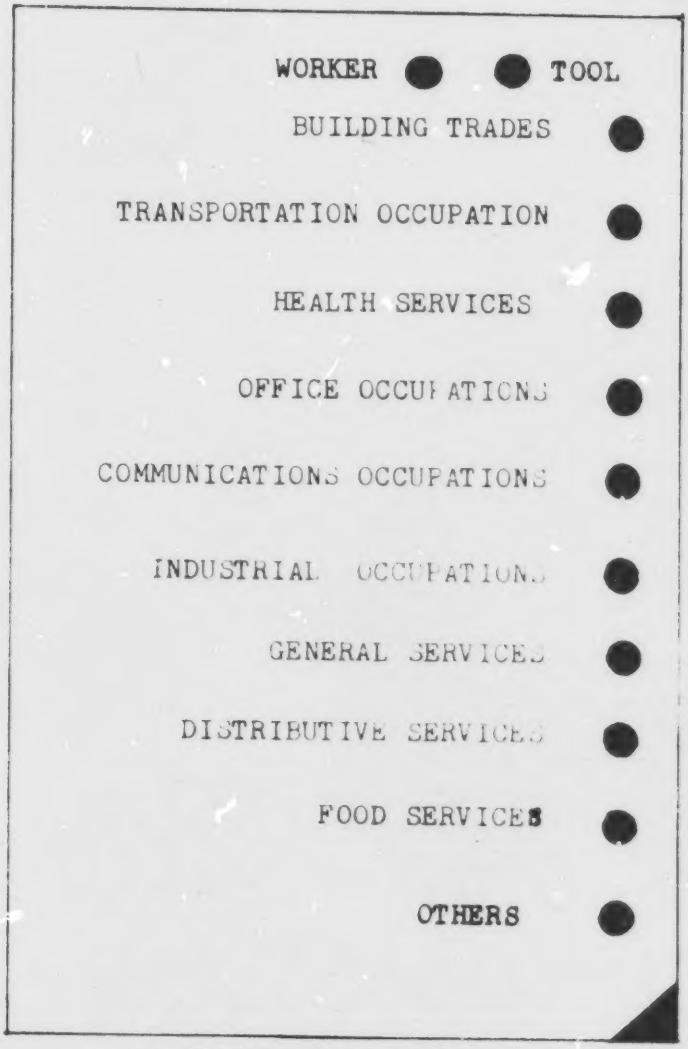
1. Lay the template carefully on the card that you have written. Make sure that the ten holes are at the top.
2. Decide which occupation this card belongs to.
3. Mark the hole that corresponds to the occupation of the card.
4. Decide if the card describes a worker or a tool that a worker uses.
5. Mark the corresponding hole--worker or tool.
6. Now, using the template as a guide, draw a circle in all of the unused holes. (The marked holes should be completely marked in)



7. Using a hole punch, carefully punch every circle, including the holes completely marked in.
8. Using the scissors, cut a 'V' at each of the marked holes.
9. The cards are now ready to be used in the first Hands-on activity.

OCCUPATIONAL LIST

1. Cook
2. Chef
3. Salad Girl
4. Waitress
5. Waiter
6. Maitre d' hotel
7. Oven
8. Dishwasher
9. Refrigerator
10. Temperature
11. White Blood Cells
12. Red Blood Cells
13. Doctor
14. Registered Nurse
15. Licensed Practical Nurse
16. Nurse's Aide
17. Attendant
18. X-ray technician
19. Laboratory Technician
20. Resusitator
21. Surgery
22. Antidote
23. Gause Pads
24. Pilot
25. Bus Driver
26. Cab Driver
27. Truck Driver
28. Navigator
29. Stewartess
30. Train Engineer
31. Conductor
32. Chauffer
33. Ambulance Driver
34. Tractor
35. Diesel Fuel
36. Oil
37. Circulating Nurse
38. Dietician
39. Scrub Nurse
40. Nursing Assistant
41. Operating Room Technician
42. Inhalation Therapist
43. Hospital Housekeeper
44. Food Services Worker
45. Suture
46. Shock
47. Forceps
48. Scapel



OCCUPATIONAL CARD TEMPLATE

Business and Office Occupations
Occupational List
(Continued)

50. Face Mask
51. Scrub Brush
52. Surgical Gloves
53. Centrifuge
54. Microscope
55. Forklift
56. Stethoscope
57. Bandages
58. Compress
59. Surgical Scissors
60. Syringe
61. Thermometer
62. Sling
63. Splint
64. Tweezers
65. Tourniquet
66. Balanced Diet
67. Modified Diet
68. Pulse
69. Blood Pressure
70. Trowel
71. Hammer
72. Shovel
73. Wrench
74. Faucet
75. Saw
76. Roofer
77. Brickmason
78. Apprentice
79. Carpenter
80. Secretary
81. Plumber
82. Draftsman
83. Level
84. Hinge
85. Typewriter
86. Rule
87. File
88. Area
89. Motor Mixer
90. Astronaut
91. Air Traffic Controller
92. Service Station Attendant
93. Mechanic
94. Delivery Man
95. Motor
96. Transmission
97. Brakes
98. Boat Pilot
99. Traffic Signals
100. Railroads
101. Runways
102. Shipping Lanes
103. File clerk

OFFICE CLERK KIT

OBJECTIVES:

Using the materials provided, the students should be able to demonstrate the workings of an office filing and sorting system.

MATERIALS:

200 occupation cards, 2 hole puncher, 2 scissors, 1 sorting rod.

PROCEDURES:

1. Begin by mixing the cards in random order.
2. Observe the punched holes. Each hole is important. Some holes are notched.
3. To remove all cards about a certain field such as transportation, insert the sorting rod into the cards at the hole labeled "transportation". Lift the rod while shaking it gently. The transportation cards will fall free. The same procedure follows with each field.
4. To remove all transportation cards that describe tools, insert the sorting rod first into the transportation hole and remove them, then taking these cards, insert the rod into the "tool" hole and lift. The cards that fall free are the transportation cards describing tools.
5. The same procedure applies to any subject. Always, the cards that fall free are the ones being sought.
6. If the pack of cards is dropped, they may be reassembled into the correct position for sorting by using the three corner holes marked corner. The fourth corner of each card is notched. Insert the rod into each of the three holes. As each set of cards falls free, stack them with the notch in the upper right hand corner. The pack should now be in the proper position for sorting.

TYPEWRITER MYSTERIES

OBJECTIVE:

The students should be able to use a typewriter to construct pictures by typing a series of letters and symbols.

MATERIALS:

1 typewriter, typing paper

PROCEDURE:

1. Insert the paper into the typewriter and roll it until it appears in front. Then, turn the roller the number of times shown on the directions sheet.
2. Set the margins as directed on each direction sheet.
3. Engage the shift lock key on the typewriter and follow the directions below.

   "sp" means strike the space bar. 63 "sp" would mean to strike the space bar 63 times.

   "X" means strike the X. 15 "X" means strike the X 15 times.

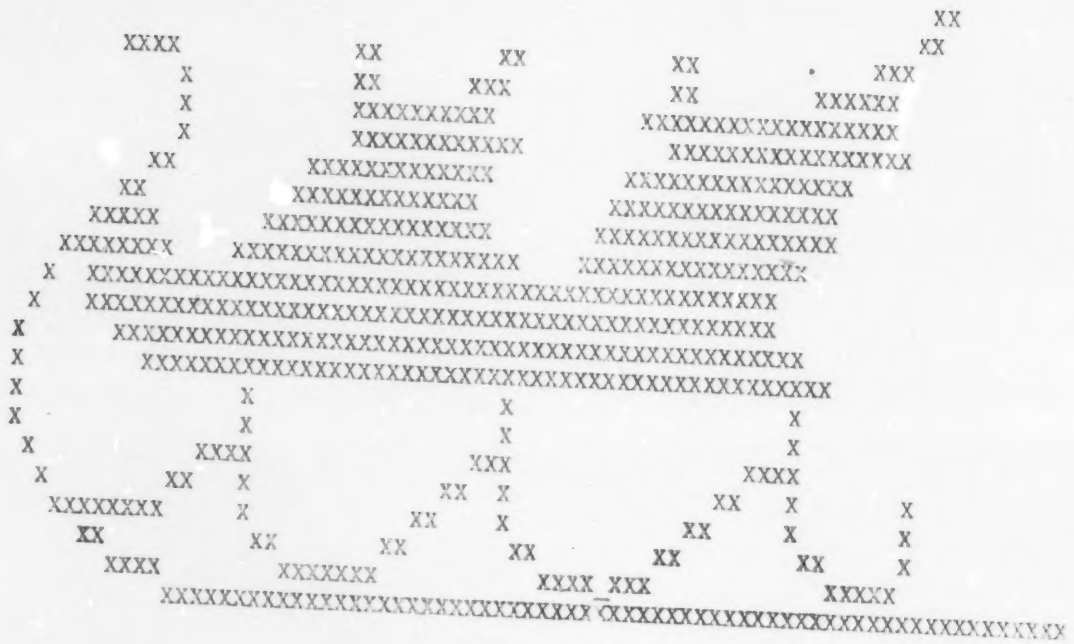
   ":" means strike the :. 19 ":" means strike the : 19 times.
4. When you finish one line return the carriage and begin the next. Follow the directions carefully.

TYPEWRITER MYSTERY

DIRECTIONS: Go down 21 spaces from the top. Set the left margin at 9 and the right margin at 78.

Line

1 - 63sp 2X
2 - 61sp 3X
3 - 7sp 4X 12sp 2X 8sp 2X 10sp 2X 12sp 3X
4 - 11sp 1X 11sp 2X 6sp 3X 11sp 2X 8sp 6X
5 - 11sp 1X 11sp 10X 10sp 18X
6 - 11sp 1X 9sp 12X 10sp 17X
7 - 9sp 2X 9sp 13X 9sp 16X
8 - 7sp 2X 10sp 13X 9sp 16X
9 - 5sp 5X 7sp 16X 7sp 17X
10 - 3sp 8X 4sp 20X 4sp 16X
11 - 2sp 1X 2sp 48X
12 - 1sp 1X 3sp 48X
13 - 1X 6sp 48X
14 - 1X 8sp 48X
15 - 1X 15sp 1X 17sp 1X 19sp 1X
16 - 1X 15sp 1X 17sp 1X 19sp 1X
17 - 1sp 1X 11sp 4X 15sp 3X 16sp 4X
18 - 2sp 1X 8sp 2X 3sp 1X 13sp 2X 2sp 1X 14sp 2X 3sp 1X 7sp 1X
19 - 3sp 8X 5sp 1X 11sp 2X 4sp 1X 12sp 2X 5sp 1X 7sp 1X
20 - 5sp 2X 10sp 2X 7sp 2X 7sp 2X 8sp 2X 8sp 2X 5sp 1X
21 - 7sp 4X 8sp 7X 11sp 8X 12sp 5X
22 - 11sp 54X



Business and Office Occupations
Project #3
(Continued)

TYPEWRITER MYSTERY

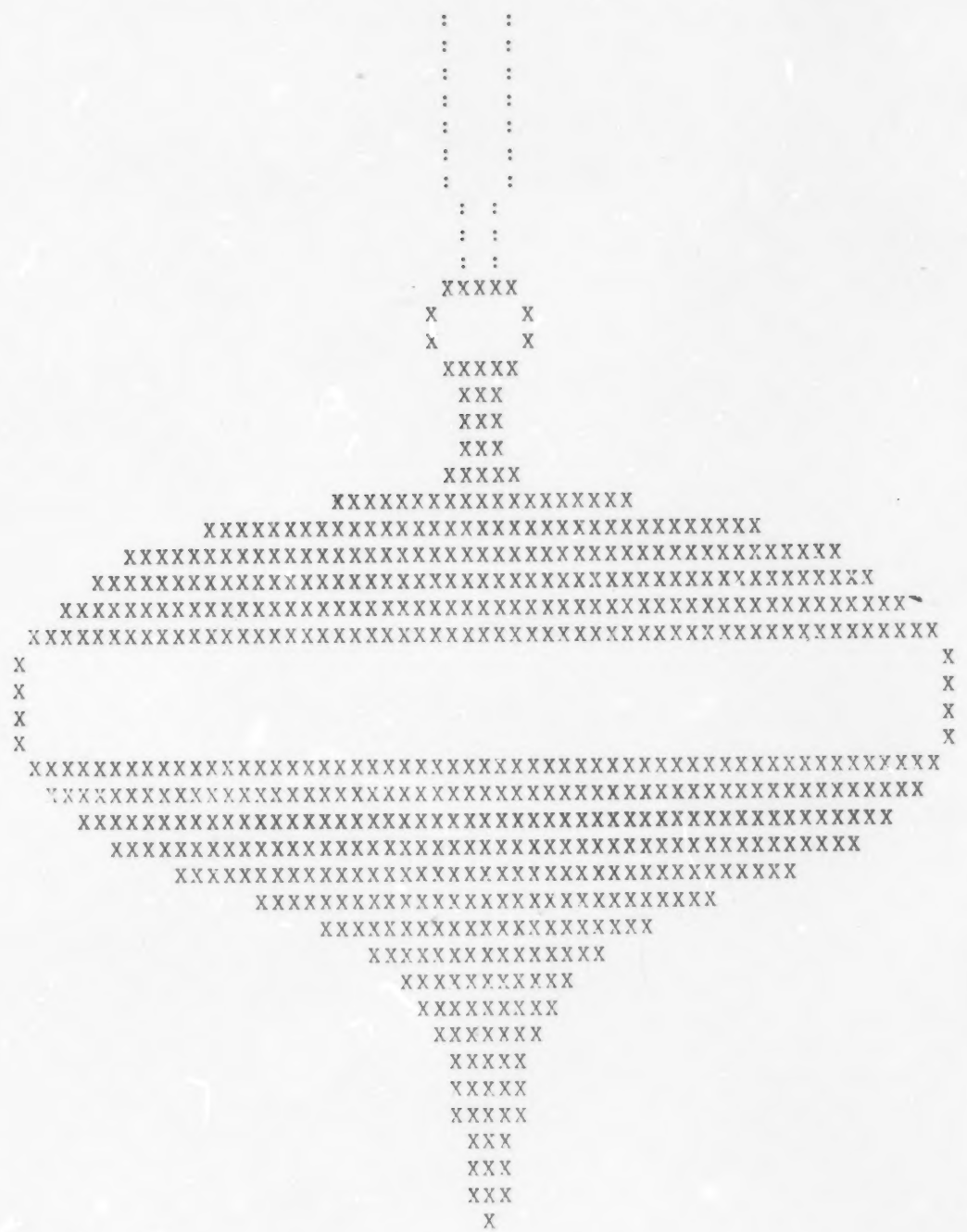
DIRECTIONS: Go down 9 spaces from the top. Set the left margin at 12 and the right margin at 75.

Line

1 - 27sp 1: 3sp 1:
2 - 27sp 1: 3sp 1:
3 - 27sp 1: 3sp 1:
4 - 27sp 1: 3sp 1:
5 - 27sp 1: 3sp 1:
6 - 27sp 1: 3sp 1:
7 - 27sp 1: 3sp 1:
8 - 28sp 1: 1sp 1:
9 - 28sp 1: 1sp 1:
10 - 28sp 1: 1sp 1:
11 - 27sp 5X
12 - 26sp 1X 5sp 1X
13 - 26sp 1X 5sp 1X
14 - 27sp 5X
15 - 28sp 3x
16 - 28sp 3X
17 - 28sp 3X
18 - 27sp 5X
19 - 20sp 19X
20 - 12sp 35X
21 - 7sp 45X
22 - 5sp 49X
23 - 3sp 53X
24 - 1sp 57X
25 - 1X 57sp 1X
26 - 1X 57sp 1X
27 - 1X 57sp 1X
28 - 1X 57sp 1X
29 - 1sp 57X
30 - 2sp 55X

Line

31 - 4sp 51X
32 - 6sp 47X
33 - 10sp 39X
34 - 15sp 29X
35 - 19sp 21X
36 - 22sp 15X
37 - 24sp 11X
38 - 25sp 9X
39 - 26sp 7X
40 - 27sp 5X
41 - 27sp 5X
42 - 27sp 5X
43 - 28sp 3X
44 - 28sp 3X
45 - 28sp 3X
46 - 29sp 1X



Business and Office Occupations
Project #3
(Continued)

TYPEWRITER MYSTERY

DIRECTIONS: Go down 10 spaces from the top. Set the right margin at 5 and the left margin at 78.

Line

1 - 31sp 6X
2 - 31sp 5X
3 - 30sp 5X 20sp 1X 2sp 1X 2sp 1X
4 - 30sp 5X 19sp 1X 2sp 1X 2sp 1X 2sp 1X
5 - 17sp 2X 11sp 4X 18sp 2X 2sp 1X 2sp 1X 2sp
6 - 16sp 3X 1sp 3X 17sp 7X 1sp 1X 2sp 1X 2sp 1X
7 - 15sp 5X 10sp 3X 14sp 11X 1sp 2X
8 - 13sp 7X 4sp 2X 4sp 2X 12sp 15X
9 - 11sp 10X 3sp 3X 3sp 3X 7sp 15X
10 - 9sp 13X 1sp 27X
11 - 8sp 24X 5sp 8X
12 - 7sp 24X
13 - 8sp 23X
14 - 8sp 21X
15 - 9sp 18X
16 - 13sp 20X
17 - 14sp 3X 2sp 17X
18 - 19sp 19X
19 - 19sp 19X
20 - 19sp 19X
21 - 17sp 22X
22 - 16sp 25X
23 - 15sp 9X 1sp 17X
24 - 14sp 8X 4sp 16X
25 - 13sp 5X 9sp 16X
26 - 12sp 5X 6sp 21X
27 - 11sp 5X 4sp 27X
28 - 10sp 5X 4sp 31X
29 - 10sp 5X 4sp 15X 3sp 16X
30 - 10sp 3X 5sp 11X 8sp 17X
31 - 18sp 9X 13sp 17X
32 - 18sp 8X 18sp 14X
33 - 17sp 8X 22sp 11X
34 - 16sp 9X 24sp 11X
35 - 16sp 9X 28sp 9X 3sp 2X
36 - 17sp 7X 29sp 13X
37 - 17sp 6X 31sp 5X 3sp 2X
38 - 16sp 7X 30sp 9X
39 - 14sp 8X 32sp 2X 2sp 2X
40 - 12sp 11X 31sp 1X 1sp 2X
41 - 8sp 1X 1sp 2X 4sp 1X 5sp 1X 31sp 2X
42 - 9sp 5X 2sp 1X 6sp 3X 26sp 3X
43 - 9sp 18X
44 - 12X 2sp 15X 2sp 15X 2sp 14X 2sp 11X

DIRECTIONS: Go down 8 spaces from the top. Set the left margin at 5 and the right margin at 78.

Line

1 - 34sp 6X
2 - 32sp 10X
3 - 32sp 10X
4 - 34sp 6X
5 - 28sp 18X
6 - 26sp 22X
7 - 22sp 30X
8 - 20sp 34X
9 - 20sp 34X
10 - 20sp 34X
11 - 20sp 34X
12 - 20sp 34X
13 - 20sp 34X
14 - 20sp 34X
15 - 20sp 34X
16 - 20sp 34X
17 - 18sp 38X
18 - 18sp 38X
19 - 18sp 38X
20 - 18sp 38X
21 - 18sp 38X
22 - 18sp 38X
23 - 18sp 38X
24 - 16sp 42X
25 - 16sp 42X

Line

26 - 16sp 42X
27 - 14sp 46X
28 - 14sp 46X
29 - 14sp 46X
30 - 12sp 50X
31 - 12sp 50X
32 - 12sp 50X
33 - 10sp 54X
34 - 10sp 54X
35 - 8sp 58X
36 - 8sp 58X
37 - 8sp 20X 8: 6X 8: 20X
38 - 4sp 12X 16: 6X 16: 12X
39 - 4sp 8X 22: 6X 22: 8X
40 - 4sp 6X 25: 8X 25: 4X
41 - 2sp 4X 26: 10X 26: 4X
42 - 2X 30: 10X 30: 2X
43 - 2sp 2X 28: 10X 28: 2X
44 - 4sp 2X 27: 8X 27: 2X
45 - 6sp 4X 24: 6X 24: 4X
46 - 10sp 6X 42: 6X
47 - 16sp 8X 26: 8X
48 - 26sp 8X 10: 8X
49 - 32sp 10X

SPIRIT MASTER OPERATION

OBJECTIVES:

After participating in this project, the pupils will be able to explain the process of duplicating materials in quantity and in color.

MATERIALS:

1 each of the purple, blue, red, green, and black master sheets; spirit master duplicating paper; a sharp semi-hard leaded pencil.

PROCEDURES:

1. Separate the top sheets from the inked back.
2. Trace the pattern on to this top sheet and go over it in pencil.
3. Place the top sheet on the inked back of the desired color (i.e., red).
4. Repeat this process with each color.
5. Place the master sheet in the duplicating machine (allow an adult to assist you) and make one copy for each person in the classroom.
6. Be sure to note that the ink appears to be entirely black, but changes colors as it is transferred to the paper.

Illustration #1

A - Purple
B - Blue
C - Red
D - Green
E - Black

A - Purple
B - Blue
C - Red
D - Green
E - Black

A - Purple
B - Blue
C - Red
D - Green
E - Black

WHO KEEPS US HEALTHY?

A TEACHER'S GUIDE

TO

HEALTH OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGEMENTS

HEALTH OCCUPATIONS

* Mrs. Dorris Dacus, Consultant, Health Occupations, Vocational Division

Mrs. Sara Brumley, Nursing Assistant, Instructor Adult Education Center

Mrs. Alva McCommon, Hospital Housekeeping Instructor, Adult Education Center

Mrs. Carleta Williams, Operating room Technician Instructor, Adult Education Center

Mr. Maurice Elliott, Assistant Administrator, Baptist Hospital,

Michael Farrish, Student, Cromwell Elementary

* Committee Chairman(s)

DIAGNOSIS

A boy gets an inside view of the health occupations when he is rushed to the hospital in a helicopter ambulance. During his stay, he observes the various workers and the instruments each uses. Their cooperation in making him well is also noted.

PRELIMINARY EXAMINATION

Children should be able to:

1. Name at least ten of the hospital personnel and the duties of each.
2. Explain how the people in the television lesson work together.
3. Recognize the surroundings in which the health occupations team works.

ORAL MEDICATION

admission
antidote
gauze
microscope
modified diet
pulse
resusitator
scapel
scrubbing up
shock
splint
stethoscope
surgery
suture
tourniquet

attendant
circulating nurse
dietitian
doctor
food services worker
hospital housekeeper
inhalation therapist
laboratory technician
licensed practical nurse
nursing assistant
operating room technician
registered nurse
scrub nurse
x-ray technician

TREATMENT OF SYMPTOMS

When shown a poster of a worker in health occupations, pupils should be able to: a) name him, b) describe generally the work he does, c) match him with pictures of the instruments he uses.

In a classroom discussion of the health occupations, the pupils should point out:

a) ways in which the personnel work together
b) working conditions in the hospital
c) differences in length of training for each position

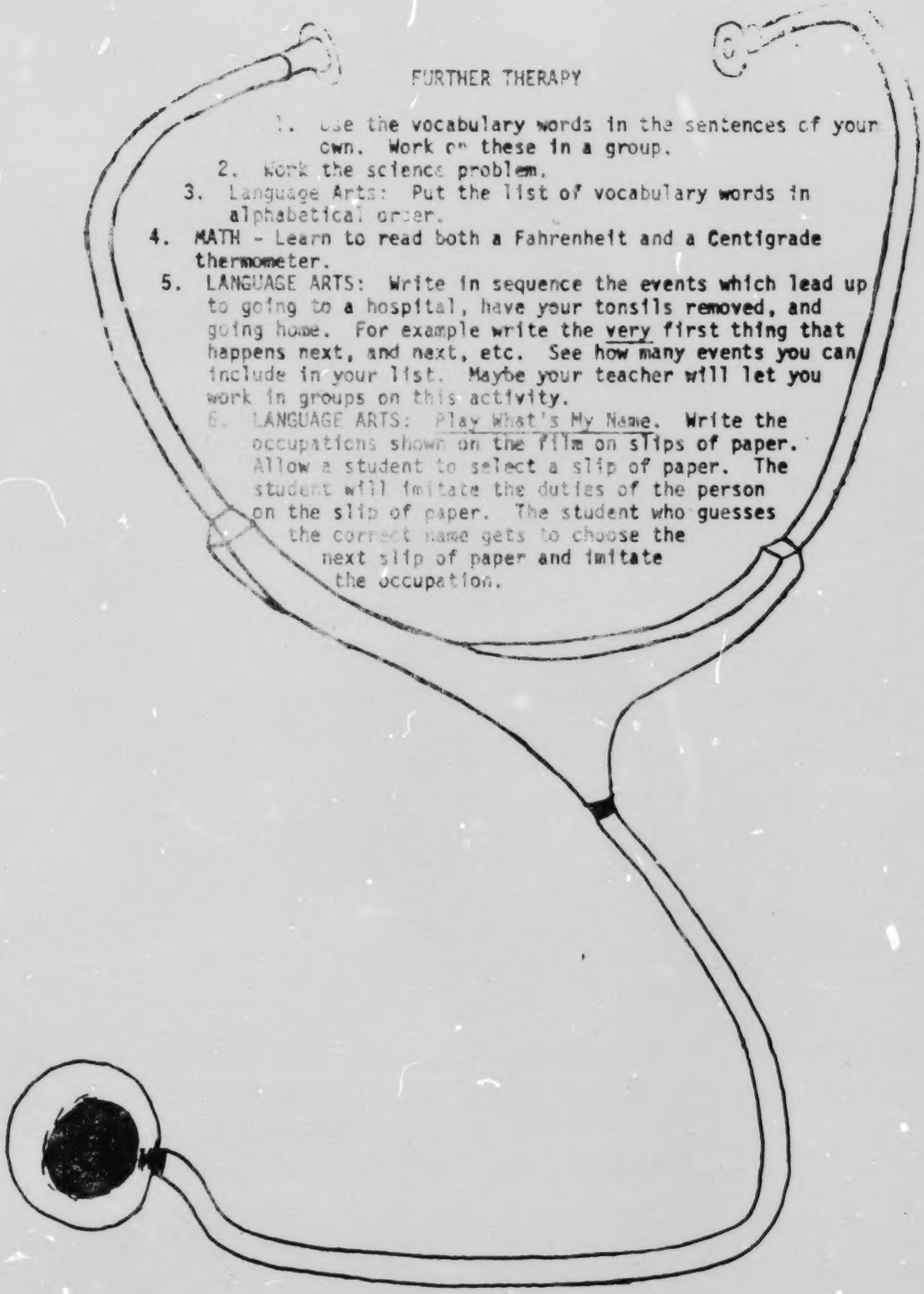
PRESCRIPTION

Books:

Elting, Mary. The First Book of Nurses.
Hammond, Diana. Let's Go To A Hospital.
Lerner, Marguerite Rush, M.D. Doctor's Tools.

Films:

"The Doctor" #18480
"Health - You and Your Helper" #29020
"Your Friend the Doctor" #77060



FURTHER THERAPY

1. Use the vocabulary words in the sentences of your own. Work on these in a group.
2. Work the science problem.
3. Language Arts: Put the list of vocabulary words in alphabetical order.
4. MATH - Learn to read both a Fahrenheit and a Centigrade thermometer.
5. LANGUAGE ARTS: Write in sequence the events which lead up to going to a hospital, have your tonsils removed, and going home. For example write the very first thing that happens next, and next, etc. See how many events you can include in your list. Maybe your teacher will let you work in groups on this activity.
6. LANGUAGE ARTS: Play What's My Name. Write the occupations shown on the film on slips of paper. Allow a student to select a slip of paper. The student will imitate the duties of the person on the slip of paper. The student who guesses the correct name gets to choose the next slip of paper and imitate the occupation.

V O C A B U L A R Y

Can you make a word from the scrambled letters? Make the right words and put it in the blank. Then the sentence will make sense and you will have a fact about someone in the cluster of health occupations.

OCCUPATIONS:

1. The (niporegta omro echnniitac) _____ _____ _____ works to get the operating room ready for surgery.

2. A patient is fed and bathed by the (iugnnsr stantssai) _____ _____.

3. A (aopshtli kpeeeesuroh) _____ _____ keeps the hospital rooms clean and sanitary.

4. The (teiditnia) _____ sees that food trays are prepared for the patients.

5. One duty of the (urcsb sneur) _____ _____ is to help put gloves on the surgeon.

6. All the people in health occupations help the (toocrd) _____ to make the patient well.

7. The (iiclraucgtn ensru) _____ _____ keeps fresh supplies ready for the operating team.

8. A blood count is performed by the (brryloatao ttaasssin) _____ _____.

9. The (neieldsc ltpcaarci reusn) _____ _____ _____ takes temperatures and gives shots.

10. The oxygen tent is adjusted by the (aaniihnlto streiahpt) _____ _____.

11. A (gristeeedr esrun) _____ _____ must have three years of training after high school graduation.

12. In a hospital, the food for the patients is prepared and served by the (ofod resscive krorew) _____ _____ _____.

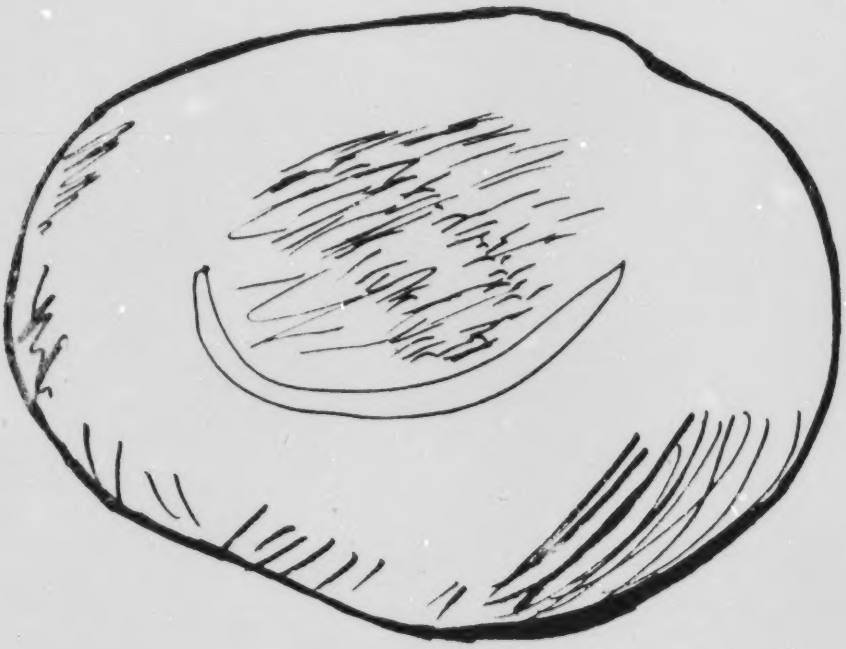
T	H	E	R	A	P	I	S	T	E
R	E	S	L	U	P	A	D	P	H
A	R	C	E	E	B	L	O	O	D
H	U	F	H	G	I	C	S	O	H
C	T	J	L	N	S	P	C	K	N
N	U	N	O	O	I	T	S	I	E
H	S	O	R	T	O	C	W	T	S
T	N	C	A	R	N	B	I	D	R
X	I	L	E	P	A	C	S	A	U
M	S	U	R	G	E	R	Y	V	N

The following words are hidden above. They may be backwards, forwards, diagonal or even diagonally backwards. See how many you can find. Circle the words as you find each one.

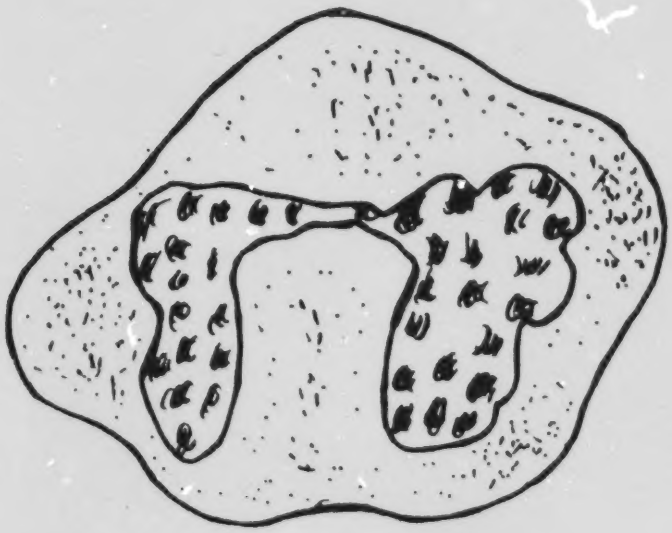
Nurse	Microscope	Hospital	Blood
Chart	Therapist	Surgery	Suture
Scapel	Technician	Doctor	Pulse

SCIENCE PROBLEM

Use the encyclopedia to color the red cell and the white cell.



RED BLOOD CELL



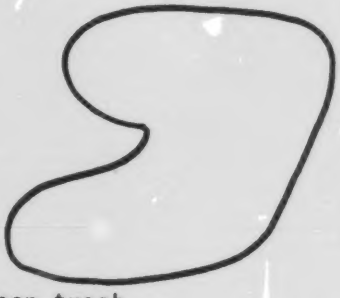
WHITE BLOOD CELL

BULLETIN BOARD IDEAS

1. Prepare a "I Can Help, Too" board. This may show tasks the students may perform in the home or in the neighborhood to aid in safety and helath. The free forms on this page represent pictures the students cut out of magazines.

Stay away from people when I have a cold.

Pick up objects which would trip you.



Keep trash picked up.

Keep knives and sharp objects put away.

I

CAN

HELP

TOO

Keep stairways well lighted

Keep matches put away.

Store clenaing agents and poisons in safe places.

Wipe spills from cloor.

II. Keep a health chart for each child on the bulletin board so he can check it off each day.

Name _____ Grade _____

School _____ Age _____ sex _____

Today I have:

	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F
1. Had plenty of sleep															
2. Eaten a nourishing breakfast															
3. Brushed my teeth															
4. Had plenty of exercise outdoors															
5. Kept objects out of my mouth and ears															
6. Washed my hands before meals															
7. Eaten a nourishing lunch															
8. Rinsed out my mouth after lunch															
9. Tried not to spread germs when I'm sick															
10. Controlled my temper when things didn't suit me															
11. Tried to help and please people															
12. Tried to make friends															

LABORATORY ASSISTANT KIT

OBJECTIVE: The student should be able to adjust the microscope so that they can see the cells and describe them.

MATERIALS: L microscope, various slides of cells*, a pad of paper, pencil

PROCEDURE:

1. Show the students how to adjust the microscope.
2. Explain simply what the functions of the microscope are.
3. Allow the student to place the slide in the microscope and adjust it.
4. Let the student locate the cell and attempt to draw it on the sketch pad.
5. Repeat these steps for each student.

*You can make your own slide from stagnant water or on onion skin. For the onion skin, peel off the filmy layer which will fit under the microscope.

LICENSED PRACTICAL NURSE KIT

OBJECTIVE: The student should be able to take and to record temperature, to find and count the pulse, and to operate a stethoscope.

MATERIALS: alcohol, cotton balls, thermometer, stethoscope, blood pressure equipment

PROCEDURE:

1. To teach the students the vital signs (pulse, temperature, blood pressure.)

PULSE

a) To determine pulse rate, place the fingers of the right hand on the inside of the wrist of the left hand, slightly left center.

b) Keep moving the fingers until a good strong pulse is located.
c) Then count the number of pulse beats you have for 30 seconds.
d) Multiply by 2 to find the pulse rate per minute.
e) As a check, try counting the number of beats for 10 seconds.
f) and multiply by 6 to determine the pulse rate.
g) The average pulse rate is 60-80 beats per minute.
g) Record your normal pulse rate.
h) Now bend from the waist and touch your toes 10 times. Then count and record your pulse rate.
i) What has happened? Why?

TEMPERATURE

a) Caution the students as to the fragile quality of the thermometer.
b) Clean the bulb of the thermometer with a cotton ball moistened with alcohol.

TEMPERATURE

c) Shake the mercury down so a true reading is possible.
d) Place the bulb under the tongue and close the lips. DO NOT clamp the thermometer between the teeth.
e) Wait 3 minutes. Then take out the thermometer and find your temperature. Record it.
f) Most people have a normal temperature of 98.6 degrees but this varies with the individual.
g) Compare your temperature with those of the other students in your group.
h) Be sure to clean the thermometer with alcohol before using.

BLOOD PRESSURE

Must be done by the school nurse.

2. STETHOSCOPE

The stethoscope consists of tow ear pieces attached to flexible rubber tubes that lead to a cone, which is applied to the outside of the body in order for the doctor to listen to sounds made by the heart, lungs, large blood vessels, and other internal organs.

Place the ear pieces of the stethoscope into place in the ears (see drawing #1). Then place the cone (see drawing #1) against your own (or someone else"s) chest. See how easily you can hear the heartbeat.

ILLUSTRATION #1

The same effect can be achieved by placing the open end of a glass tumbler against the chest and placing the ear against the closed end. (Drawing #2)

ILLUSTRATION #2

Experiment to see how much easier it is to hear the heartbeat with the stethoscope than it is with the tumbler. Drawing #3 will explain why.

Stethoscope has flexible rubber tubing which carries to sounds to examiner's ears.

ILLUSTRATION #3

3. BUILDING A STETHOSCOPE

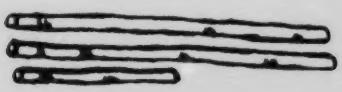
Objectives: Following these instructions the students should be able to assemble a stethoscope and listen to heartbeats and pulses.

Materials: A Y-shaped glass tube (may be metal or plastic), a rubber tubing (about 36 inches - 18 inches for each ear), and a funnel.

Procedure:

1. Cut two 14 inch strips of rubber tubing, leaving an 8 inch strip

2. Attach the two 14 inch strips to the tops of the Y-shaped tube and the 8 inch strip to



the bottom. Attach the plastic funnel to the bottom end of the 8 inch strip. Now the stethoscope is complete.

LICENSED PRACTICAL NURSE KIT

Name _____

School _____

Grade _____ Sex _____

Height _____ Weight _____

Normal Pulse _____

Pulse after exercise _____

Temperature _____

Blood Pressure _____

Heartbeat w/stethoscope _____

Heartbeat w/tumbler _____

LICENSED PRACTICAL NURSE KIT

Name _____

School _____

Grade _____ Sex _____

Height _____ Weight _____

Normal Pulse _____

Pulse after exercise _____

Temperature _____

Blood Pressure _____

Heartbeat w/stethoscope _____

Heartbeat w/tumbler _____

LICENSED PRACTICAL NURSE KIT

Name _____

School _____

Grade _____ Sex _____

Height _____ Weight _____

Normal Pulse _____

Pulse after exercise _____

Temperature _____

Blood pressure _____

Heartbeat w/stethoscope _____

Heartbeat w/tumbler _____

LICENSED PRACTICAL NURSE KIT

Name _____

School _____

Grade _____ Sex _____

Height _____ Weight _____

Normal Pulse _____

Pulse after exercise _____

Temperature _____

Blood pressure _____

Hearbeat w/stethoscope _____

Heartbeat w/tumbler _____

NURSING ASSISTANT

OBJECTIVES: After working with this project, the student should be able to distinguish between diets for certain patients; should be able to select food according to a menu; should be able to plan a well balanced meal.

MATERIALS: Food trays, food models*, napkins, flatware, straws

PROCEDURE: Use the food models and trays to prepare a food tray for each patient listed below:

A. Patient #1 has had an appendectomy and is on a clear liquid diet.

BREAKFAST: strained oranged juice, coffe, sugar
SNACK: strained lemonade (soft drink)

LUNCH: strained soup, strained grapefruit juice, tea, sugar
SNACK: gingerale (soft drink)

DINNER: strained soup, rasberry gelatin, tea, sugar
SNACK: strained orange juice

B. Patient #2 has had her tonsils removed. The doctor had ordered a regular liquide diet. Prepare the trays and put the nearest snack on it.

BREAKFAST: tomato jucie, cream cooked farina ceral, cream, sugar, coffee
SNACK: milk

LUNCH: chowder, orange juice, vanilla ice cream
SNACK: chocolate malted milk

DINNER: stewed tomatoes, apple sauce, tea, sugar
SNACK: chocolate ice cream

C. Patient #3 is in traction with a back injury. Normally he would have a regular diet, but he has ulcers. His doctor ordered a soft diet for him. Prepare his 3 trays.

BREAKFAST: tomato juice, cooked ceral, poached egg on toast, white toast, butter, coffee, milk, cream, sugar

LUNCH: tomato soup, whole wheat bread with butter, macaroni and cheese, broccoli, baked custard, milk

DINNER: sliced chicken, mashed potatoes, buttered cabbage, bread and butter, ice cream and sponge cake, milk

D. Patient #4 has a broken leg. His doctor has ordered a regular diet. Prepare the trays for him.

BREAKFAST: grapefruit, packaged cereal and milk, bacon, scrambled egg, jelly, toast/butter, cream, coffee, sugar, milk

LUNCH: vegetable soup/crackers, roast beef, cream peas, carrot and cottage cheese salad, corn muffins/ butter, milk, tea, sugar, cherry cottage pudding with whipped cream.

DINNER: tossed green salad/french dressing, London broil meat patties, baked potato, string beans, rolls, with butter, milk, tea, sugar, apple pie with cheese.

NOTE: Food models may be obtained from the Memphis Dairy Council, or you may make your own by pasting magazine pictures on posterboard. It might be a good idea to arrange the foods together by type: for example - all beverages, all salads, all vegetables, all meats, all breads, all desserts.

Health Occupations
Project #3
(Continued)

NURSING ASSISTANT - Draw a slip and prepare the tray. Cut along solid line.

#1 Breakfast: strained orange juice, coffee, sugar Snack: strained lemonade, (soft drink)	#3 Lunch: tomato soup, whole wheat bread with butter, macaroni & cheese, broccoli, baked custard, milk
#2 Breakfast: tomato juice, cream cooked farina cereal, cream, sugar, coffee Snack: milk	#4 Lunch: vegetable soup/crackers, roast beef, cream peas, carrot and cottage cheese salad, corn muffins/butter, milk, tea, sugar, cherry cottage pudding with whipped cream
#3 Breakfast: tomato juice, cooked cereal, poached egg on toast, white toast, butter, coffee, milk, cream, sugar	#1 Dinner: strained soup, rasberry gelatin, tea, sugar Snack: strained orange juice
#4 Breakfast: grapefruit, packaged cereal and milk, bacon, scrambled egg, jelly, toast/butter, cream, coffee, sugar, milk	#2 Dinner: stewed tomatoes, apple sauce, tea, sugar Snack: chocolate ice cream
#1 Lunch: strained soup, strained grapefruit juice, tea, sugar Snack: Gingerale (soft drink)	#3 Dinner: sliced chicken, mashed potatoes, buttered cabbage, bread and butter, ice cream and sponge cake, milk
#2 Lunch: chowder, orange juice, vanilla ice cream Snack: chocolate malted milk	#4 Dinner: Tossed green salad with french dressing, London broil meat patties, baked potato, string beans, rolls/butter, milk, tea, sugar, apple pie with cheese

FIRST AID

OBJECTIVES:

After the project, the children should have a general knowledge of first aid rules. They should know how to use the lists given to them. They should know some of the four pressure points to stop bleeding. Using the guide, they should be able to bandage a finger, a knee, a hand, and an ankle.

MATERIALS:

List of first aid supplies, General Rules for First Aid, list of antidotes, guaze strips for bandaging, guaze squares for head bandaging, finger splints, arm splints.

PROCEDURES:

1. Go over the General Rules for First Aid. Discuss the points one by one.

2. Go over the list of supplies for making the student's own first aid kit. Discuss the use of each item.

3. Go over the list of antidotes. Discuss ways carelessness can lead to accidental poisoning. Why does each antidote work?

4. Looking at the instructions for bandaging, attempt to apply each bandage.

5. Using the charts for pressure points, helping the students locate these areas. Discuss what accidents might cause bleeding in these areas.

GENERAL RULES FOR FIRST AID

1. Stay Calm
   You cannot think clearly if you are excited. You may be the only one who can summon help or reassure the injured person.

2. Analyze the Situation
   Can you give the right kind of help to the injured person? If you can help him, begin at once. If you are not sure, DO NOTHING to the injured person. Call the police or the fire department at once.

3. DO NOT MOVE THE VICTIM (unless absolutely necessary)
   Move him only if he is in danger of further injury. If you must move him, do so gently and carefully.

4. Keep the Victim Lying Down
   The victim should not be allowed to sit up or to walk around. Talk to him calmly and do not allow other people to crowd about him.

5. Examine the Victim
   Remember he may have more than one injury. Try to stop any bleeding. If the person is unconscious, but has no sign of injury, have someone help you examine his identification. Many diabetics, heart patients, and other persons subject to suddent illness carry cards that give instructions for emergency care. Fllow these instructions carefully.

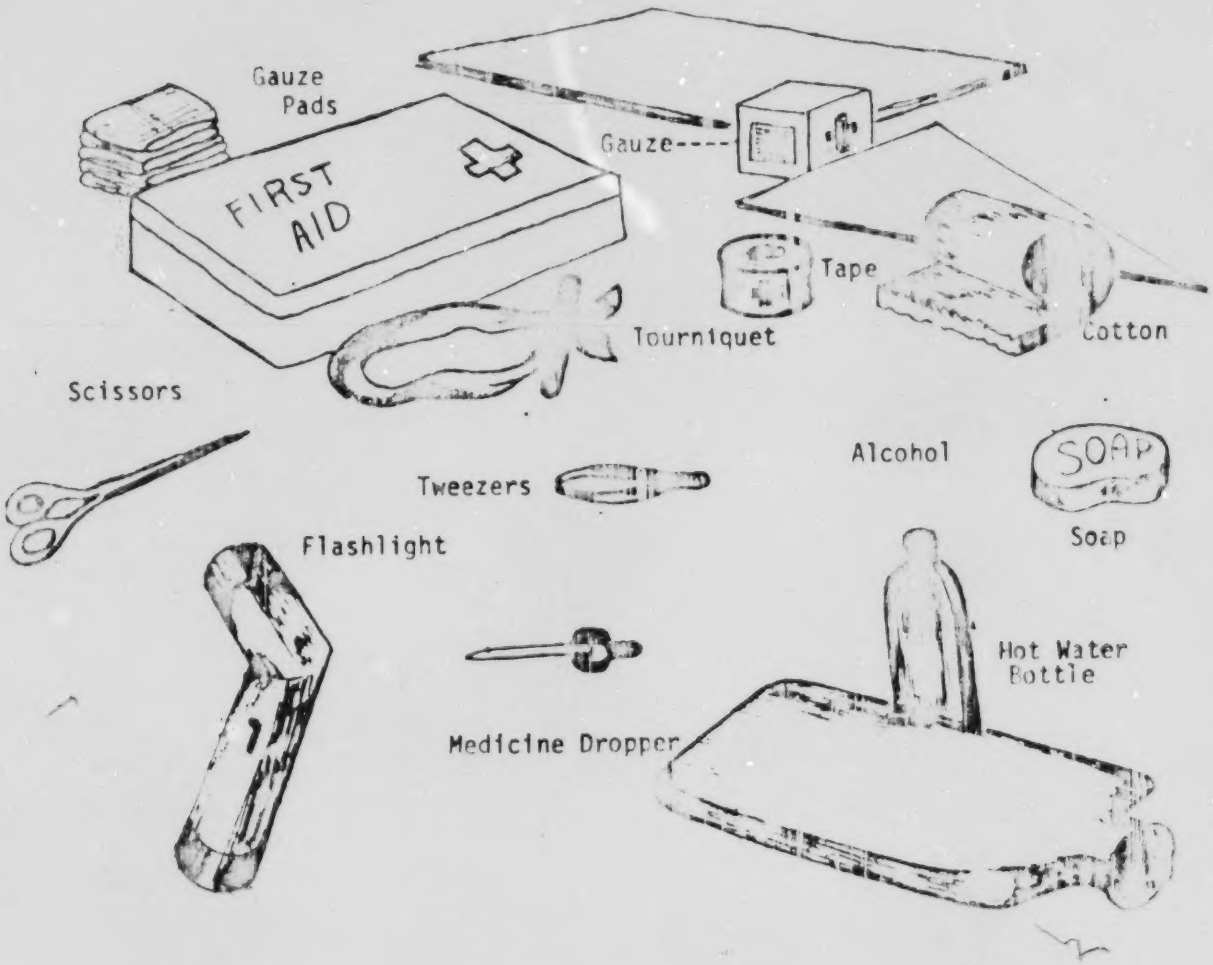
6. Cover the Victim
   As soon as the bleeding has been stopped, cover the victim so he won't become chilled. Preserving body heat is important in preventing and treating shock.

7. Call a Doctor
   In the confusion and excitment after an accident, many times everyone assumes that someone else has called a doctor. Be sure that the ambulance has been called also. If you do not know how to contact a doctor, the telephone operator will help you. Be sure you can give clear directions on how to get to the scene of the accident.

F I R S T A I D K I T S

There are many commercial first-aid kits on the market. However, many people prefer to make their own. Find a good sturdy box in which to collect the items usually needed for emergencies. Then put the box in place easy for you to reach.

The following list names the basic items needed for emergencies. Can you tell why each item is needed?



ANTIDOTES FOR COMMON POISONS

The best antidote for poison is to prevent a person from taking it by keeping it out of his reach. Many items around the house can be harmful:

aspirin
sleeping pills
kerosene
any medicine not prescribed for you
ammonia
lye
disinfectants
insecticides
weed killers
garden sprays
metal polish
furniture polish
dry cleaners
bleasches
moth balls
rat poisons

If a person does take poison, there are general rules to follow for diluting the poison in his system. Speed is very important in poisoning accidents. Remember to:

1. GIVE THE VICTIM WATER OR MILK. This will dilute the poison. Adults should drink four or more glassed of liquid.

2. GIVE THE ANTIDOTE. This is printed on the label of the poison, or give the antidote in the table that follows. If you don't know an antidote for the poison, give the universal antidote: 1 part milk of magnesia; 1 part strong tea; 2 parts crumbled burned toast.

3. CALL A DOCTOR. Have someone call a doctor, while you give first-aid. If you are alone, call the doctor as soon as possible.

Tape the following list in a handy place. (Begins on page 2)

****

ANTIDOTED FOR COMMON POISONS

ACIDS, STRONG

Give water to dilute the acid. Then give baking soda solution, milk, egg white, olive oil, or salad oil to protect the lining of the digestive tract.

ALKALIES, STRONG (lye, ammonia)

Give orange or lemon juice, or a mixture of equal amounts of vinegar and water. Then give milk, egg white, olive oil, or salad oil to coat the digestive tract.

ARSENIC AND ARSENIC PREPARATIONS (rat poisons, insect spray)

Give water, then egg white and milk.

ASPIRIN

Give large amounts of water. Get the victim to a hospital as soon as possible.

BARABITURATES (drugs that induce sleep)

If the victim is conscious, give him large amounts of coffee. Try to make him walk. If the victim is unconscious, keep him warm and call a doctor at once. If breathing stops, give artifical respiration.

CARBOLIC ACID (phenol)

Give 1 tablespoon of Epsom Salt in a glass of water. DO NOT give milk, fats or oils.

GAS (Coal gas, cooking gas, carbon monoxide)

Give the victim fresh air. Begin artificial respiration.

IODINE

Mix starch or flour with water to make a thin paste. Give the victim several glassfuls of this mixture to drink.

MATCHES (phosphorus)

Give water. Do not give milk, fat, or oils.

****

MORPHINE AND OTHER OPIATES (codeine, paregoric)

Keeo the victim awake. Wash his hands and face with cold water. Keep him moving about. Give him strong black coffee. If he is unconscious, keep him warm until a doctor arrives. Start artifical respiration if breathing stops.

POISONOUS MUSHROOMS (toadstools)

Give strong tea, then castor oil. Keep the victim warm and quite.

STRYCHNINE (rat poison)

Give the victim water or milk. Do not give stimulating drinks. Keep the victim warm and quite in a darkened room until a doctor arrives. Give artifical respiration if necessary.

****

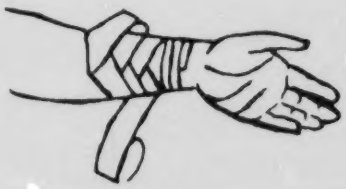
Health Occupations
Project #4 (D)

B A N D A G I N G

Choose one or all of the following injuries and practice bandaging them.

1. Pretend someone has a cut on his forearm. Follow the poctures and direction to bandage it.

   a) Use a roller bandage. Make one or two straight turns.

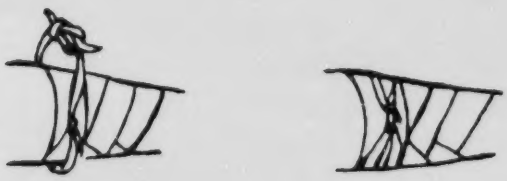


   b) Then reverse the direction of the spiral on each turn.

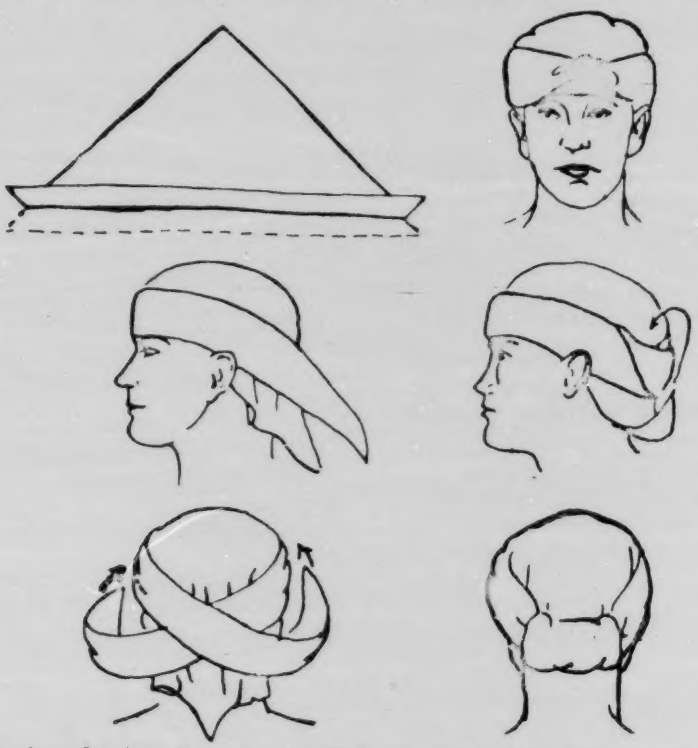
   c) At the end, make one or two straight turns for anchorage.

   d) Split the end of the roller bandage for about ten inches and tie at the base with a half hitch.

   e) Bring the two ends around the bandage and tie with a square knot.

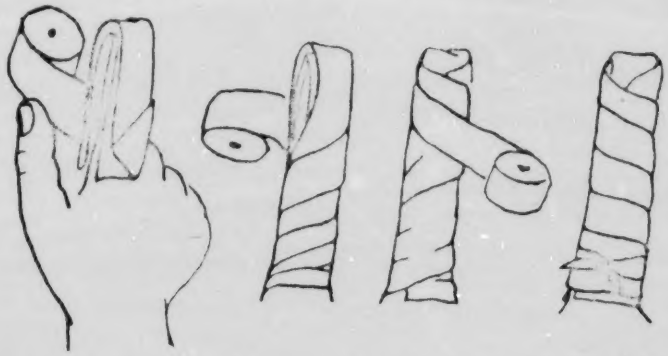


2. Someone has a head injury. Follow these steps to bandage his head:



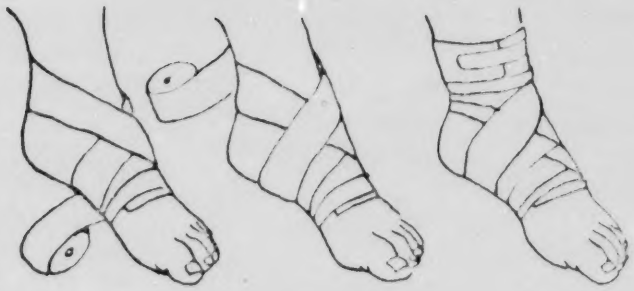
1. A large triangle bandage is useful as a head bandage. A two-inch fold is made along the base of the bandage.
2. The bandage is placed on the victim's head with the apex (point at top) down the back of the neck and the two ends brought behind the head above the ears.
3. The ends are crossed and returned to the front.
4. The ends are tied with a square knot.
5. The apex is tucked in.
6. Appearance of the finished bandage from behind.

3. You have cut your finger. This is how to bandage it.



Run the bandage from the base over the tip back to the base of the finger several times. Wind the bandage around the finger to the tip and back to the base. Tie it at the base, or use adhesive tape.

4. Your best friend has injured his foot. Can you help him put a bandage on it.

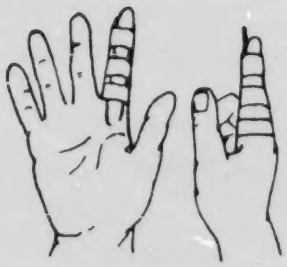


Wrap the bandage around the instep, then up around the ankle. Wrap as many turns around the ankle as are needed and tape or tie the bandage.

5. Your knee is hurt. Bandage it.

To bandage a knee or elbow, bend the joint slightly. Anchor the bandage above the joint, winding it completely around. Then draw the bandage behind or to the side of the joint to a point below the injury. Continue to bandage by alternately winding the bandage first above, then below, the joint. This forms a heringbone design. Fasten the bandage in place securely but not tightly.

6. Someone has a finger injury. You think the finger may be broken. Put a splint on it to go to the doctor.



Popsicle stick is used to splint broken finger.

B L E E D I N G

Some injuries or wounds can result in a great loss of blood unless someone can stop the bleeding. It is good to know the pressure points and ways to stop bleeding.

The best way to stop bleeding is to apply direct pressure to the wound.

a) Use a thick compress of gauze or a gauze pad.

b) Apply direct pressure on and around the wound (or in the wound if it is very wide.) This will likely stop the bleeding.

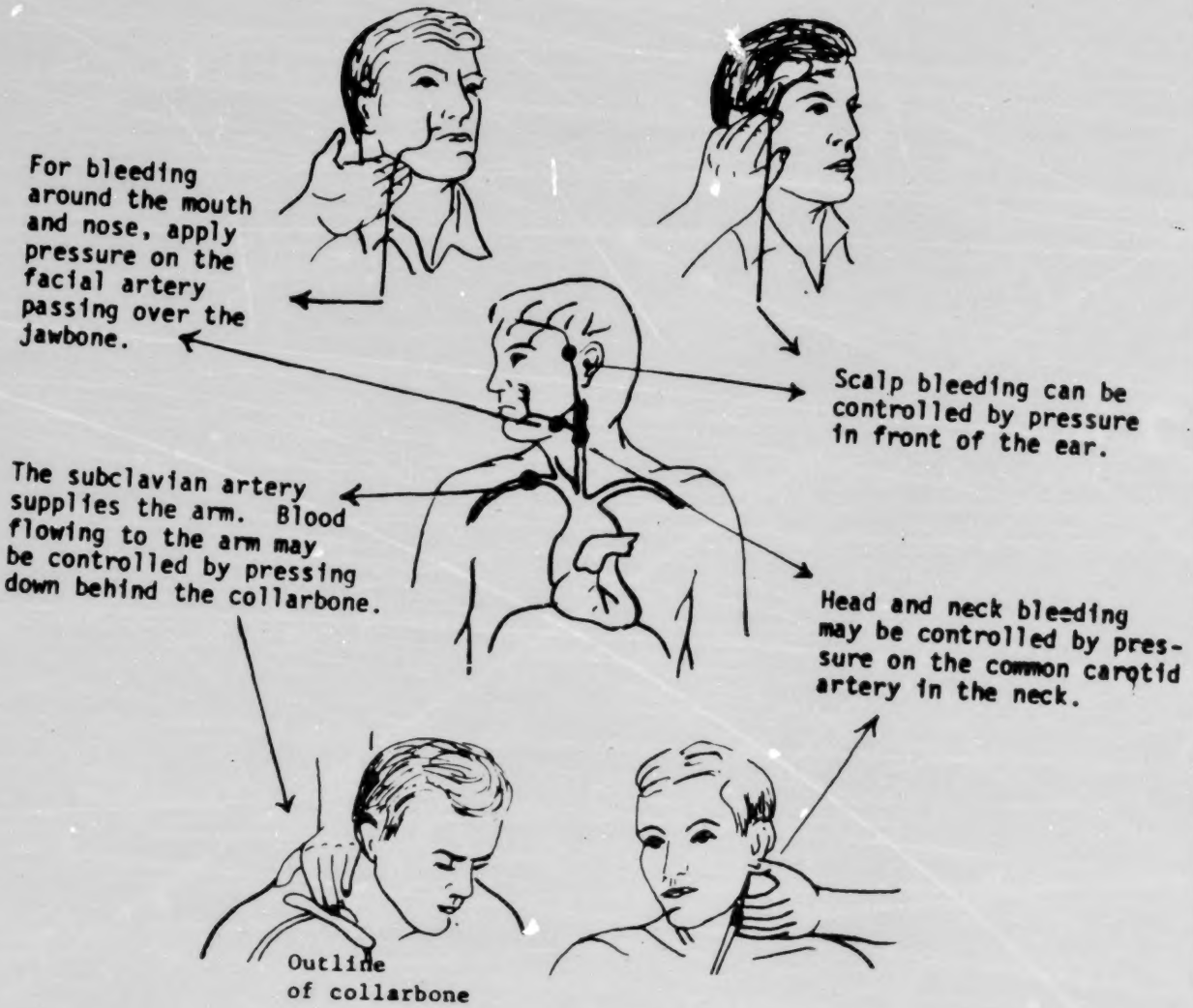
c) The pressure must be constant. DO NOT lift the gauze every few minutes to see if the bleeding stops.

d) If blood soaks through the gauze pad, get a fresh one. If it does not soak through, then bind the gauze pad firmly over the would while you go to a doctor.

e) Sometimes direct pressure will not stop the bleeding. Then you should apply pressure at the nearest pressure point.

Seven pressure points and the injuries causing the bleeding are found on the following page.

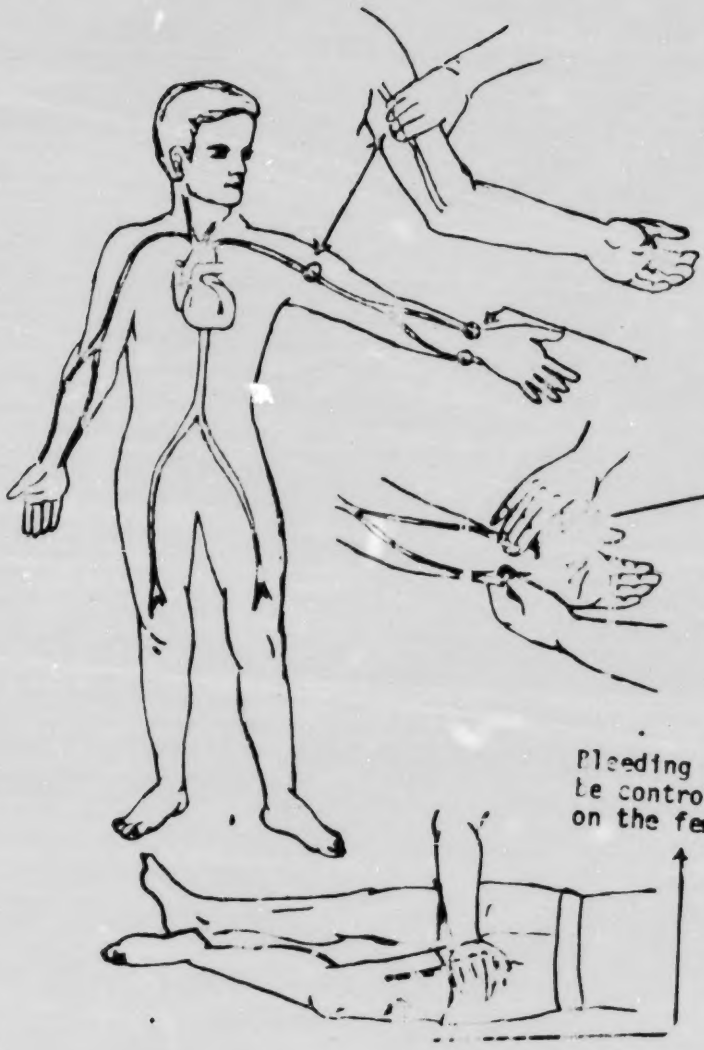
Pressure Points:


For bleeding around the mouth and nose, apply pressure on the facial artery passing over the jawbone.
Scalp bleeding can be controlled by pressure in front of the ear.
The subclavian artery supplies the arm. Blood flowing to the arm may be controlled by pressing down behind the collarbone.
Head and neck bleeding may be controlled by pressure on the common carotid artery in the neck.
Outline of collarbone

Outline
of collarbone

Project #4 (E)
(continued)

Pressure Points:

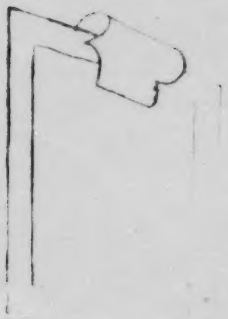


Compress brachial artery against bone of upper arm to control bleeding from wound lower on arm.

Pressure on the two arteries of the wrist controls bleeding of the hand.

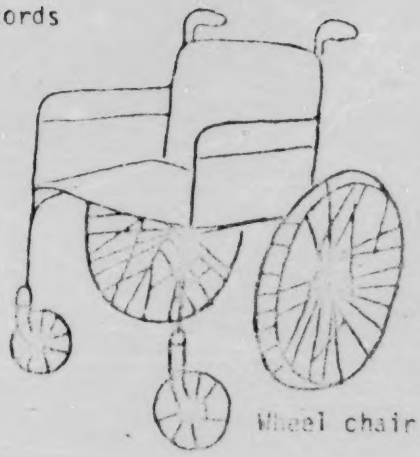
Bleeding from the leg can be controlled by deep pressure on the femoral artery high up in the groin.

MATCH THE TOOLS WITH THE WORKER

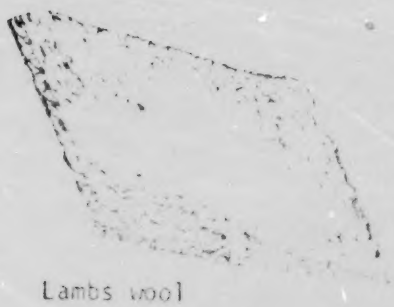


Patient records

Food tray



Wheel chair



Lambs wool

Wash bowl

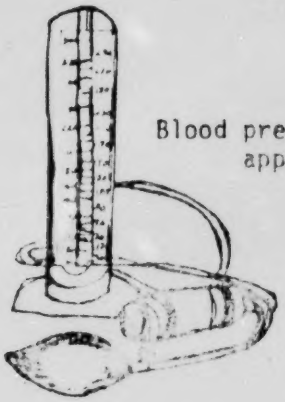
Water bottle

Wash cloth and towel

MATCH THE TOOLS WITH THE WORKER

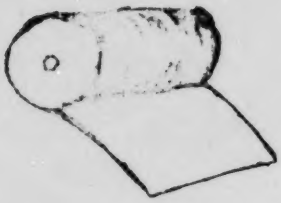
Stethoscope

Compress

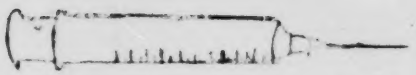


Blood pressure apparatus

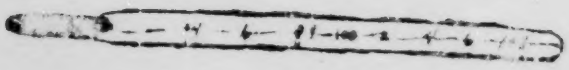
Bandages



Scissors



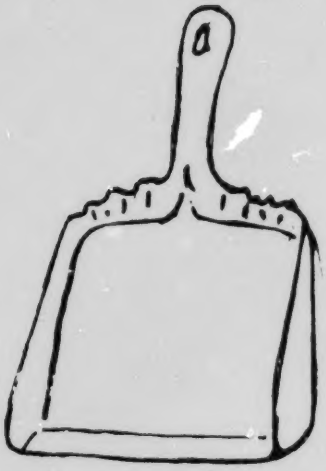
Syringe



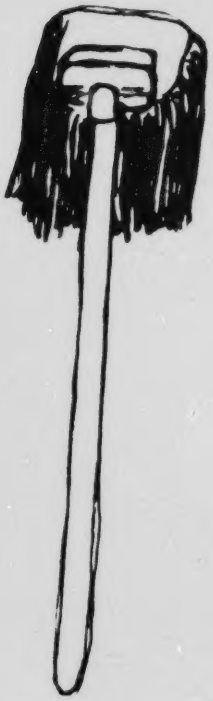
Thermometer

Match with second [illegible]

MATCH THE WORKERS WITH THE TOOLS



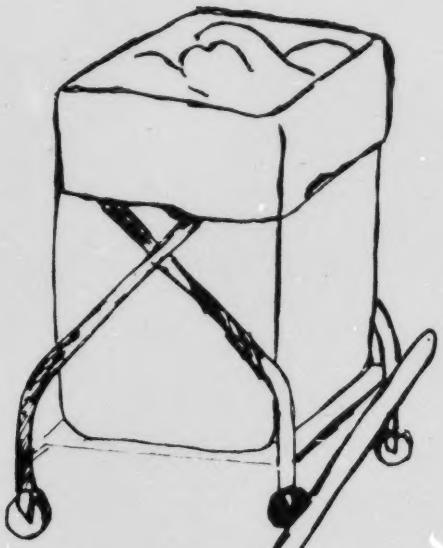
Dust pan



Wet mop

Furniture duster

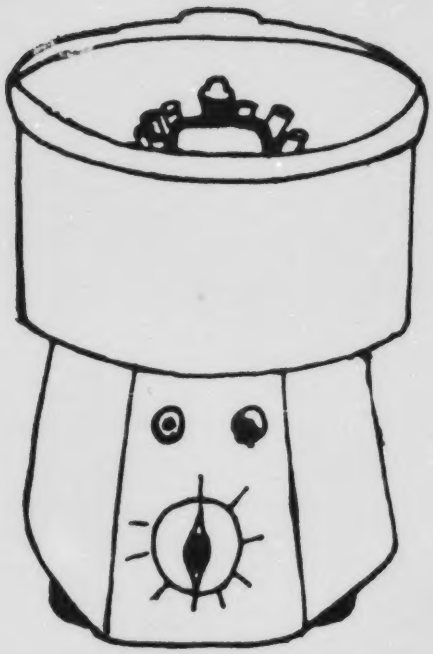
Linen Hamper



Wet mop pail

Floor dust mop

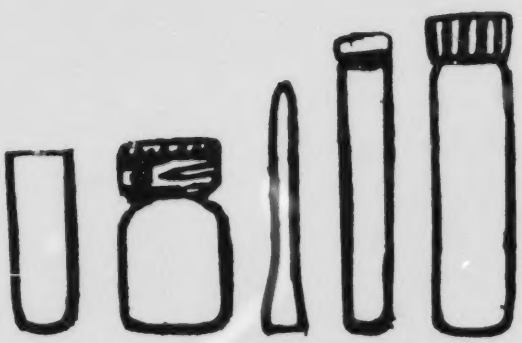
MATCH THE WORKERS WITH THE TOOLS



Centrifuge

Microscope

Contents of Centrifuge



Reagent kits

Specimen tubes

Plasma preparing cups

Automatic pipette

Reaction cuvettes

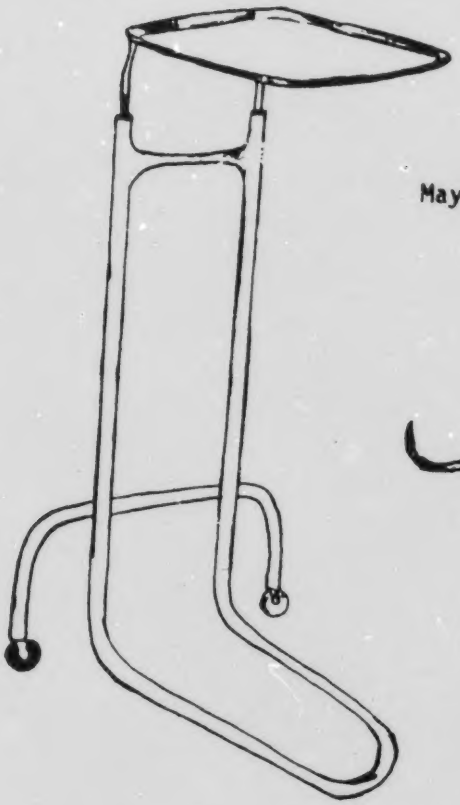
Ultrapurified reagents

Pipette

Petri dishes

MATCH THE WORKERS WITH THE TOOLS

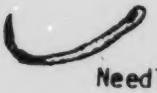
Face mask



Mayo table

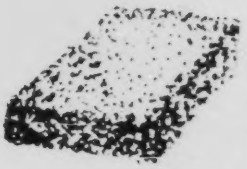
Surgical gloves

Tonsil sponge

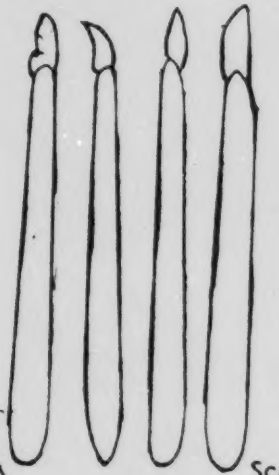


Needle

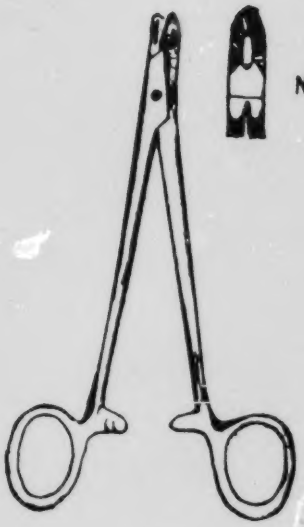
Forceps



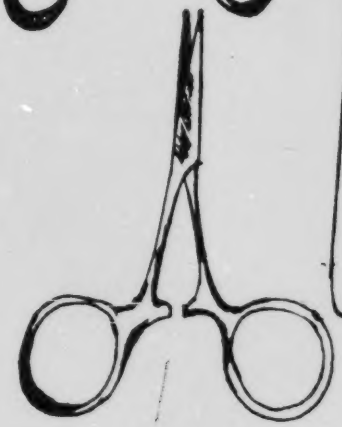
Silicone sponge



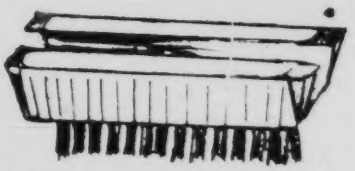
Scalpels



Needle holder

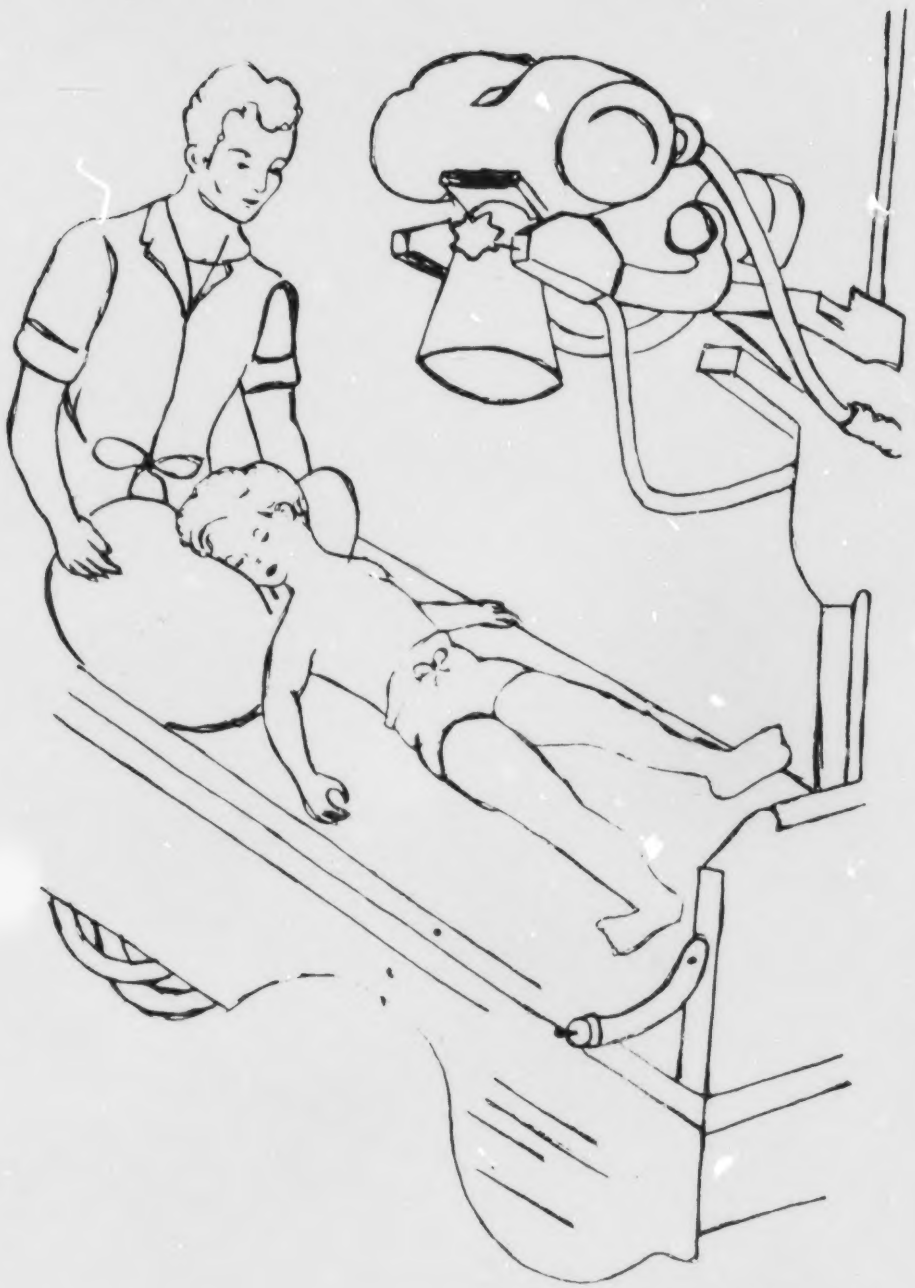


Hemostat



Scrub brush

MATCH THE WORKERS WITH THE TOOLS



WHO MAKES OUR FURNITURE?

INDUSTRIAL OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGEMENTS

MANUFACTURING OCCUPATIONS

*Mr. John R. Ralston, Jr., Consultant, Vocational Division

Mr. Jim Kern, Director of Personnel, Memphis Furniture and Manufacturing Company

Mr. Marshall Marcus, Job Placement Coordinator, Project SPAN

*Committee Chairman

LISTING OF INDUSTRIAL OCCUPATIONS

accountant
assembler
cashier
designer
draftsman
engineer
forklift operator
gluer
inspector
loader
machine operator
machinist
painter
personnel director
production line workers
salesman
secretary
stapler
supervisor
upholstery seamstress

H	G	L	U	E	R	W	S
A	T	O	O	L	R	C	P
M	U	P	I	E	R	T	L
M	N	A	N	E	A	R	I
E	N	C	W	U	I	A	E
R	H	P	M	A	L	C	R
L	L	I	R	D	W	A	S

FIND THESE HIDDEN WORDS:

ART	NAIL	SAW
CLAMP	NUT	SCREW
DRILL	PLIERS	TOOL
GLUER	RAIL	WRENCH

LANGUAGE ARTS

See if you can decode the message below, using the number code.

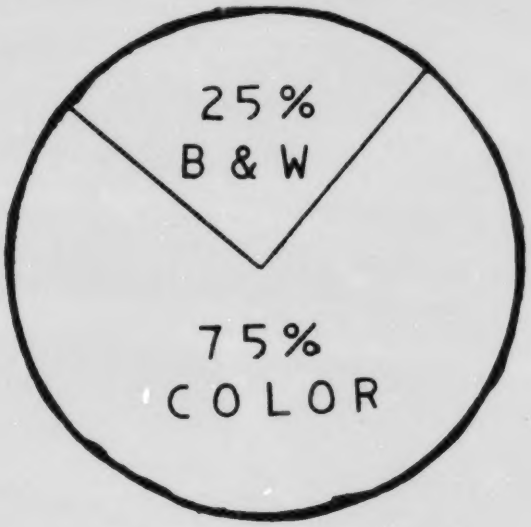
01 - A	08 - H	15 - O	
02 - B	09 - I	16 - P	22 - V
03 - C	10 - J	17 - Q	23 - W
04 - D	11 - K	18 - R	24 - X
05 - E	12 - L	19 - S	25 - Y
06 - F	13 - M	20 - T	26 - Z
07 - G	14 - N	21 - U	

08 - 15 - 23/ 23 - 15 - 21 - 12 - 04/ 25 - 15 - 21/
12 - 09 - 11 - 05/ 20 - 15 -/ 02 - 05/ 01/
13 - 01 - 03 - 08 - 09 - 14 - 05/ 15 - 16 - 05 - 18 -
01 - 20 - 15 - 18 ?

Write the message here:

MATHEMATICS

The RCI television plant produces black and white, and color televisions. There eight assembly lines at the plant. The following pie chart shows the percentage that is black and white and the percentage that is color.



Problem #1

If RCI makes 1,000 television sets on Monday, how many are color and how many are black and white?

Problem #2

If RCI makes 2,500 televisions, how many are color and how many are black and white?

SOCIAL STUDIES

In the last 75 years, the United States has become one of the largest industrialized countries in the world. One man is responsible for much of this rapid rise, his name was Henry Ford. Can you guess what Henry Ford made? Yes, he made cars.

Before Henry Ford made cars, everything was made as a whole unit. The parts that made one card would not fit another; each car was different from the others because of this. When Henry Ford began building cars, they were very expensive. It took many days to build a car and men who were skilled craftsmen. Henry Ford started building cars liske that too, but decide that it was to slow and too expensive.

Henry Ford built a big factory and hired many unskilled men. He trained each man to do one thing. One man would put on a tire; one man would put on the steering wheel; one man would paint the car. Everyone had a job that was simple to do. Henry Ford put the heavy parts on metal hooks that moved along the line of men and in a matter of hours a car could be built.

Because Henry Ford's new assembly line was fast, he built many cars that were very inexpensive. Other car manufacturers began using Henry Ford's idea; soon the idea spread to other industries. Henry Ford's Assembly Line was soon used the world over.

Do you know what kind of car Henry Ford built?

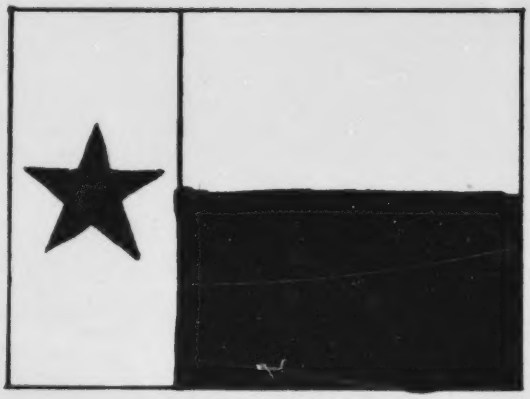
CUTTING AND SEWING KIT

OBJECTIVE: Working with this project will allow the pupils to imitate the cutting and sewing procedures used by the industrial workers.

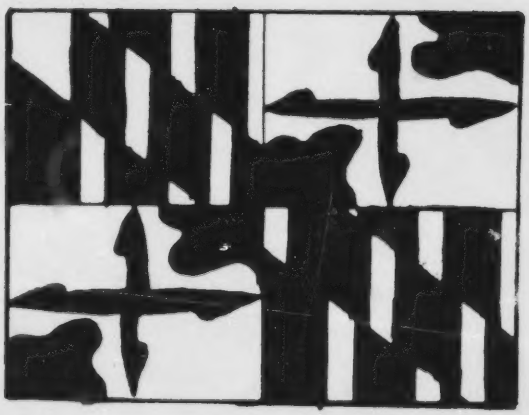
MATERIALS: A piece of felt (8"x10") for background of flag various pieces of felt in contrasting colors, pinking shears, needles, thread.

PROCEDURE:

1. Design the flag: do this on paper. Be sure you know exactly what you are going to cut before you cut it. (Use the encyclopedia for reference.)
2. With the pinking shears, cut a rectangle (8"x10") in the desired color for the background of the flag.
3. With the pinking shears, cut out the desired shapes and colors to sew (or glue) onto the background.
4. With a needle and thread stitch the shapes on to the background.
5. Pin the flags to the bulleting board.



SAMPLE FLAGS



XYLOPHONE

OBJECTIVE:

The students should be able to construct a working model of a xylophone from the material furnished.

MATERIALS:

12 pieces of 3/4 inch x 1½ inch pine
50 inches roving
16 #14 wire brads
2 - 12 inch x¼ inch dowel
2 - 1 inch wooden breads
4 - 1 inch nails
2 - 1½ inch nails
4 tacks

PROCEDURE:

On the 3/4 inch pine stock, mark off the following to be cut:

2 - 20 inches	
1 - 7½ inches	
1 - 1/5 inches	
1 - 12 inches	Bar #1
1 - 11½ inches	Bar #2
1 - 11 inches	Bar #3
1 - 10 3/4 inches	Bar #4
1 - 10¼ inches	Bar #5
1 - 9 3/4 inches	Bar #6
1 - 9¼ inches	Bar #7
1 - inch	Bar #8

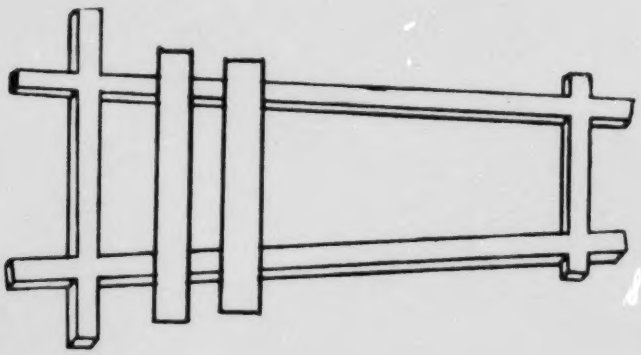
Cut the twelve pieces being careful to follow your lines.

Find the 7½ inch, 5 inch and two 20 inch pieces. Place th 20 inch pieces on edge, then mount the other two pieces flat, 16 inches apart as shown in the drawing.

With the pieces now in place, nail them together with the four 1 inch nails. The frame is finished; turn it over.

Cut the roving into two 23 inch pieces and lay it across the length of the 20 inch pieces of wood. Attach the pieces of roving to the ends using the four tacks. Make sure that the roving is tight.

Place the remaining eight bars on the frame. Beginning with the longest on the left, place the remaining according to size, 3/4 inches apart. Center the pieces so that they look like this drawing.



Where each bar rests on the frame, make a small mark in the bar's center. Removing them one at a time, drill an 1/8 inch hole at each mark and move them back into place. After all eight are drilled, take the 16 brads and tack them half way into the frame. (Not the rovings). Make sure that each bar is loose and free to vibrate.

Attach the [illegible] to each dowell with 1½ inch nails and your mallet is also com[illegible]ou may decorate the mallet and the frame, but do not paint or shellac the eight bars as this will change their sound.

CLASSROOM NOTEBOARD

OBJECTIVE:

Using the material furnished in this kit, the students should be able to construct a simple wall note holder.

MATERIALS:

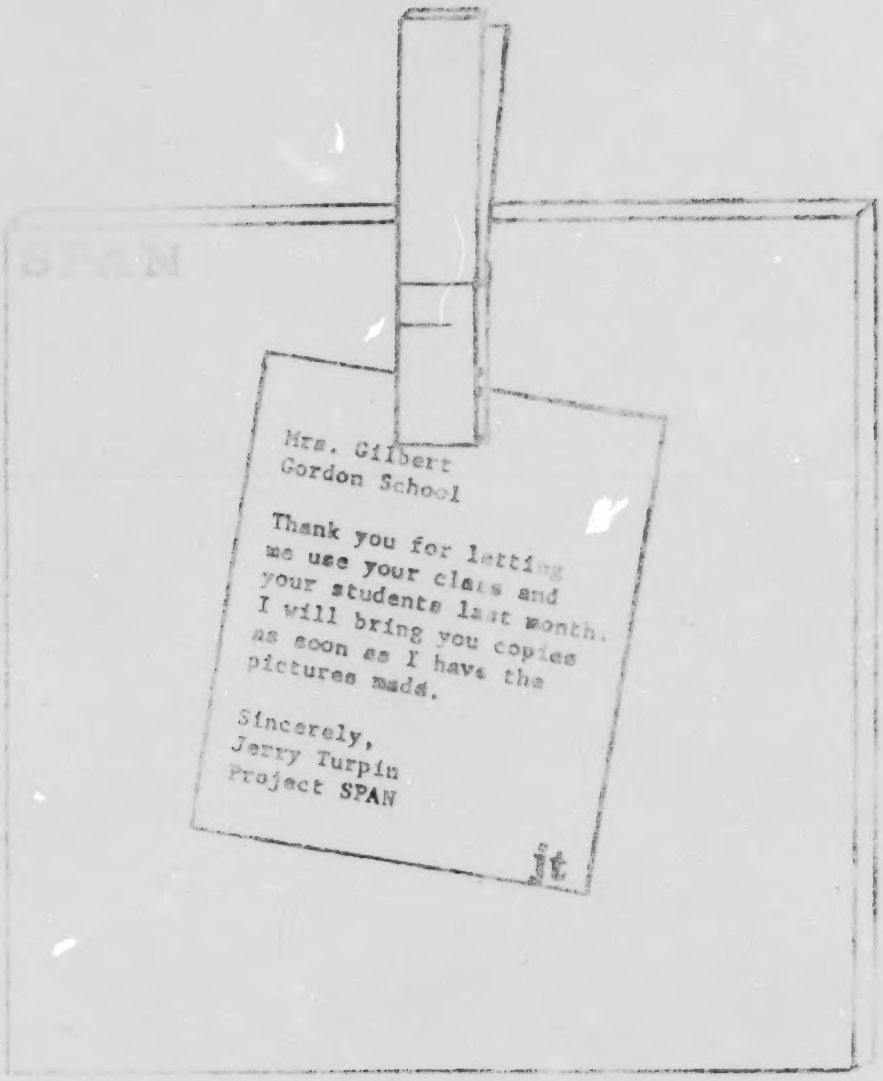
Wood 10"x12"
Clothespin
Glue
Assortment of sandpaper
Stain
Varnish

PROCEDURE:

Sand the wood piece until it has a smooth surface. Level the sides using the course sandpaper and then smooth them using the fine sandpaper.

Mix an equal amount of resin and hardener and apply it to the clothespin. Mount the clothespin centered at the top and hold for two minutes. Do not disturb this for 24 hours.

Stain the board using a rag and stain. After the stain is wiped dry, apply a thin coat of varnish. Let this dry for 24 hours before using.


SPAN
Mrs. Gilbert
Gordon School
Thank you for letting
me use your class and
your students last month.
I will bring you copies
as soon as I have the
pictures made.
Sincerely,
Jerry Turpin
Project SPAN
jt

GAMES

OBJECTIVES:

Following the instructions in this project will allow the students to demonstrate the principles behind the assembly line.

MATERIALS:

2"x6"x2" blocks of wood, cross cut from pint 2"x6"
¼" wood dowel, 5 foot length
blue enamel paint
red enamel paint
hand tools
sandpaper

PROCEDURE:

1. Divide the class into six groups.

   Group #1 - sanders

   Group #2 - layout designers

   Group #3 - drillers

   Group #4 - dowell cutters

   Group #5 - red painters

   Group #6 - blue painters

2. Group #1 takes the blocks and sands the top and bottom and bevels the edges.

3. Group #2 used the template and marks where each hole will be drilled in the block. Group #2 also marks off fifty (50) pieces of the ¼" dowel.

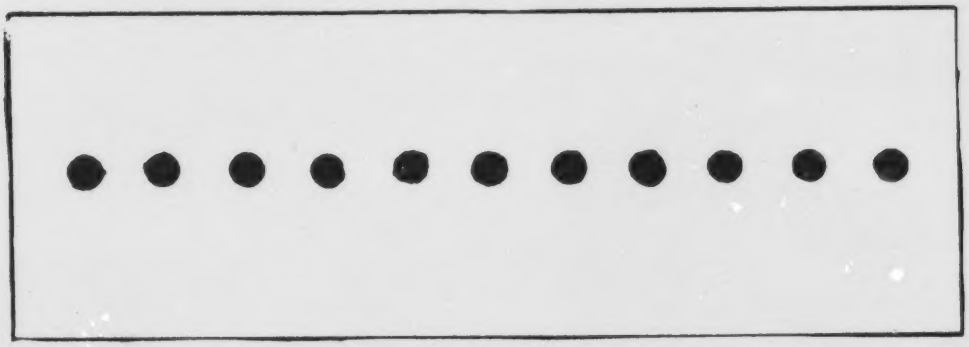
4. Group #3 drills eleven (11) holes in the blocks where the layout designers marked.

5. Group #4 cuts the dowels where they are marked.

6. Group #5 takes half of the cut dowels and dip the tips into the red paint.

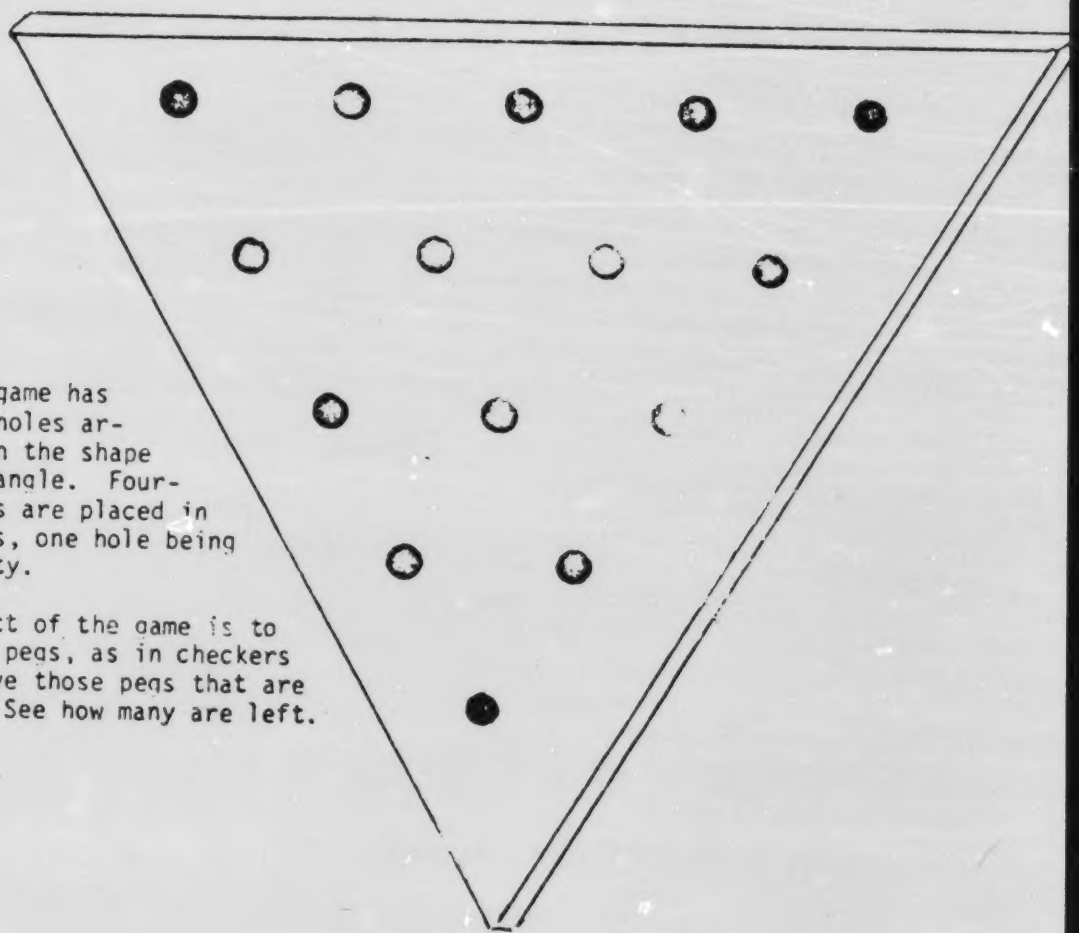
7. Group #6 takes half of the cut dowels and dips the tips into the blue paint.

8. The finished game board looks like this:



9. The object of the game is to move the red pieces into the places occupied by the blue pegs and move the blue pieces into the places occupied by the red pegs.

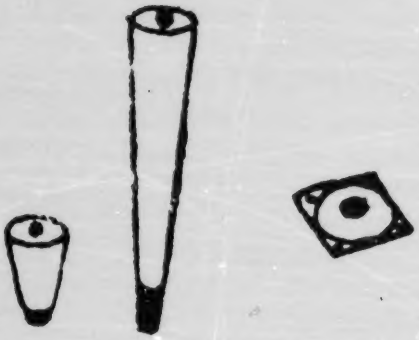
10. You may jump any piece (but only one at a time) or you may move one space forward. You may never move backwards.



Another game has fifteen holes arranged in the shape of a triangle. Fourteen pegs are placed in the holes, one hole being left empty.

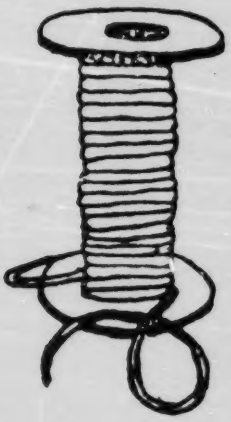
The object of the game is to jump the pegs, as in checkers and remove those pegs that are jumped. See how many are left.

SPRING



FURNITURE LEGS AND ATTACHMENT PLATE

TOOLS



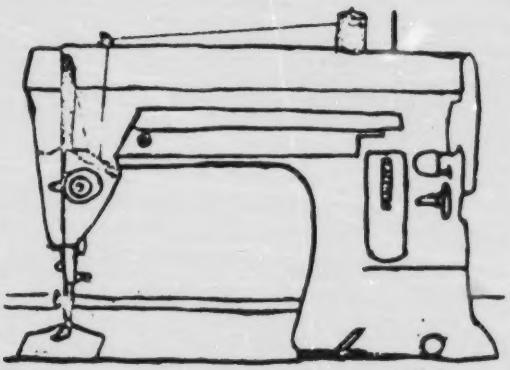
DECORATIVE TACKS

SEWING NEEDLE

UPHOLSTERY PIN

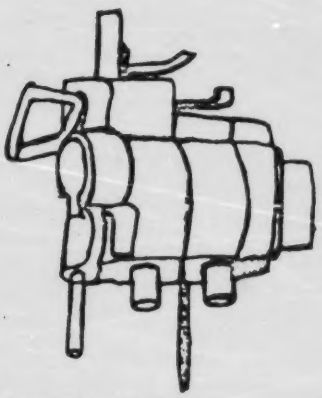
CURVED NEEDLE

BOLTS OF MATERIALS



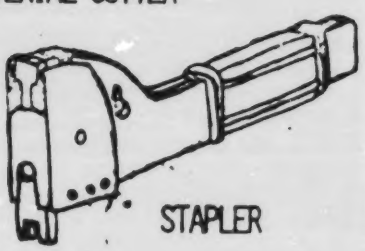
SEWING MACHINE

TOOLS



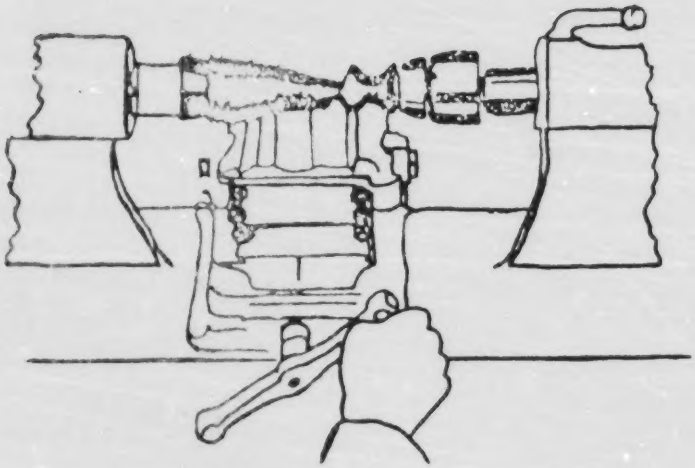
MATERIAL CUTTER

TWINE



STAPLER

POWER DRILL



WOOD LATHE

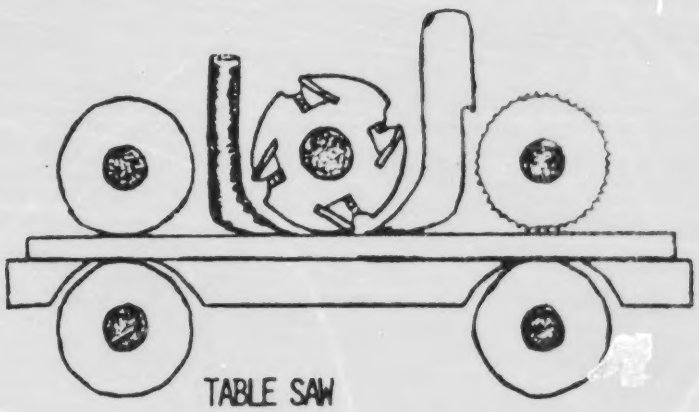
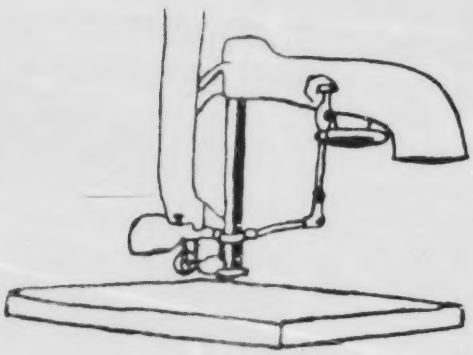


TABLE SAW



BAND SAW

TOOLS

156/157

WHO KEEPS US MOVING?

A TEACHER'S GUIDE

TO

TRANSPORTATION OCCUPATIONS

GRADES

4 5 6

158/159/160/161

ACKNOWLEDGEMENTS

TRANSPORTATION OCCUPATIONS

Mr. James Marsh, Assistant Director, Vocational Division

Mrs. Avis Pentecost, Elementary Instructional Consultant, Southwest Area

Mrs. Odessa W. Myers, Secondary Instructional Consultant, Southwest Area

Mrs. Charline May, Textbook Secretary, Instructional Division, Memphis City Schools

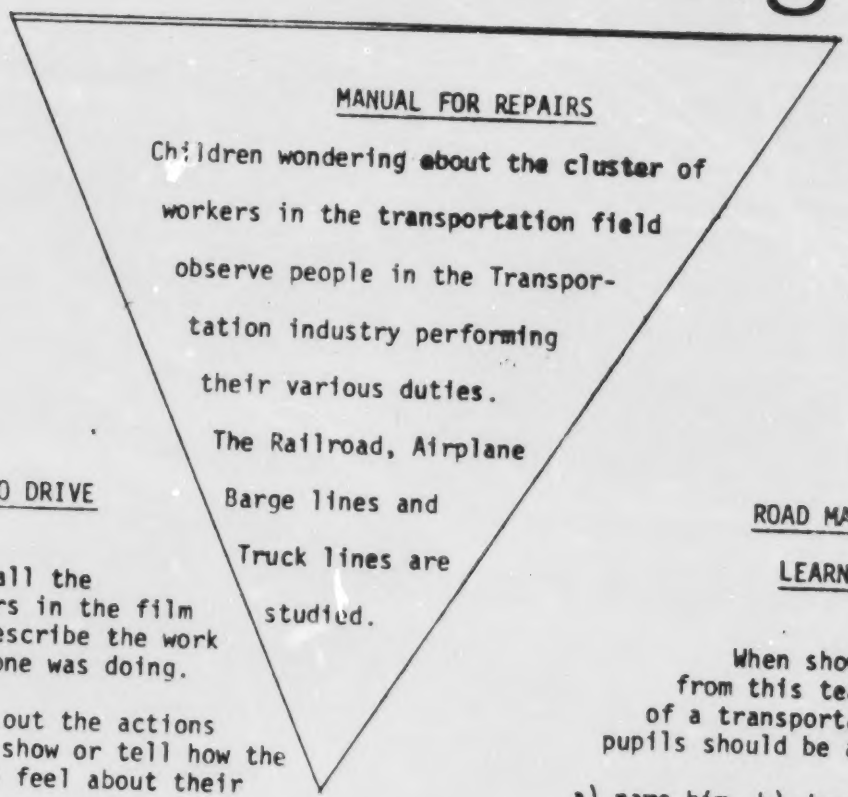
Mr. Richard A. Castilon, Assistant Director, Memphis Area Vocational-Technical School

Mr. Chester R. Figiel, Assistant Director, Aviation, Memphis Area

*Committee Chairman(s)

WKNO - TV

who keeps us moving?



MANUAL FOR REPAIRS

Children wondering about the cluster of workers in the transportation field observe people in the Transportation industry performing their various duties. The Railroad, Airplane Barge lines and Truck lines are studied.

LICENSE TO DRIVE

1.
1. List all the workers in the film and describe the work each one was doing.

2. Point out the actions which show or tell how the people feel about their work.

3. Explain ways in which people in the film work together.

ROAD MAP FOR LEARNING

When show a picture from this teachers guide of a transportation worker, pupils should be able to:

a) name him, b) describe the work he does, c) be able to locate further information about this worker.

SCHEDULE FOR CLASS WORK

Have the children"

1. Discuss "licensed to Drive"
2. LANGUAGE ARTS: Write a short story about a talking train, bus, train, or airplane.
3. Work the puzzle on page 7.
4. SOCIAL STUDIES: Compare the means of transportation now as opposed to 100 years ago.
5. MATHEMATICS: Work the math problems on pages 5 and 6, then make up some of your own.
6. Use any or all of the four building projects included. Obtaining materials for these projects is left up to the resourcefulness of the individual teacher.

HIGHWAY BILLBOARDS

1. Transportation - America's Inland waterways
   Bd of Ed #68200
2. Transportation - Footpath to Air line
   Bd of Ed #68220
3. Transportation by Land
   Bd of Ed #68260
4. Transportation in the Modern World
   Bd. of Ed. # 68300

TRUCK DRIVER'S DICTIONARY

BAREBACK: Tractor without its semi-trailer.

BOLOGNAS: Tires

DUSTING: Car or truck moving with one wheel off the pavement and throwing up a cloud of dust.

LOAD OF POST HOLES: Empty Truck.

POTS: Flares place on a highway to warn other motorists of danger.

YARD MULE: Small tractor used to move semi-trailers around at a truck terminal yard.

PUSH WATER: Gasoline.

THE HOUND: Greyhound Bus.

PEANUT WAGON: Small tractor pulling a large trailer.

PEACH PICKER: A very high cab-over-engine tractor.

GEOGRAPHY PROBLEM

Draw a map of Memphis on butcher paper (make it at least 3 feet square, and larger if possible). Be sure to include the river, the airport, the expressway, major railroads, and some of the main streets of Memphis. (Maps may be obtained from local service stations.

Cut out pictures pertaining to transportation; cars, buses, airplanes, trains, trucks, barges, boats, docks, terminals, freight yard, etc. Glue these pictures in the approximate location on the map.

LANGUAGE ARTS

Write a short poem about your favorite transporation worker or your favorite means of transportation. Illustrate it (draw pictures and color them).

Read the poems to your classmates and then place them in your scrapbook.

MATH PROBLEM

A. Hank Cooper drives a truck for the Samson Mattress Company in Memphis. He delivers mattresses all over the country. Last week, he worked locally. Hank is paid 10¢ for every mile he drives in Memphis, so he keeps up with his mileage. To do this he records his speedometer reading at the start of the day and again at the end of the day. When he subtracts, he knows how many miles he has traveled that day. He multiplies the number of miles by 10¢ to find how much money he will receive. Let's figure his wages for delivering mattresses in Memphis.

DAY	READING AT START OF THE DAY	READING AT END OF THE DAY	MILEAGE PER DAY
Monday	05290	05444	154
Tuesday	05444	05580	
Wednesday	05580	05763	
Thursday	05763	05905	
Friday	05905	06067	
	TOTAL MILES FOR WEEK		
	MULTIPLIED BY 10¢ PER MILE	x $	.10
	TOTAL MILEAGE ALLOWANCE	$	

B. One week Hank had to deliver mattresses out of town. The company pays him 13¢ a mile for these deliveries. Use a map of Tennessee to figure his mileage each day. Then multiply the total by 13¢ to tell Hank's weekly travel allowance.

DAY	START	DESTINATION	MILES PER DAY
Monday	Memphis	Chattanooga	
Tuesday	Chattanooga	Johnson City	
Wednesday	Johnson City	Murfreesboro	
Thursday	Murfreesboro	Paducah, Ky.	
Friday	Paducah, Ky.	Memphis	
	TOTAL WEEKLY MILES		
	MULTIPLIED BY 13¢ PER MILE	x $	.13
	TOTAL MILEAGE ALLOWANCE	$	

Math Pro em
(continue:)

C. Sometimes Hank makes long distance deliveries. Last week the company sent him to Seattle, Washington. For these trips he makes 15¢ a mile travel allowance. Use an Atlas, or a map of the United States to find the shortest route. Fill in the chart as you did for problem B. Hank can travel about 500 miles a day.

DAY	START	DESIGNATION	MILES PER DAY
	Memphis, Tenn.	Seattle, Wash.	
	TOTAL MILES FOR THE TRIP		
	MULTIPLIED BY 15¢ PER MILE X $ .15		
	TOTAL MILEAGE ALLOWANCE		

THE GAME OF TRANSPORTATION

2-4 Players

Each player spins the dial; the one with the highest number moves first and goes by truck to St. Louis. The next highest goes by Airplane to Chicago, the next by railroad to Atlanta, the lowest by barge to New Orleans.

START - Each player starts on the dock. The player going to St. Louis begins by spinning. He moves the number of spaces shown on the spinner.

BUMPING - Any time you land on a spot occupied by another player, he must go back to the dock. You can only bump on the first 7 spaces.

DISASTER - There are 7 Disaster Blocks on each route. If you land on one, draw a Disaster Card from the stack and follow the direction.

FREE - There are 5 free spaces on each route. They are used only when 5-8 are playing. You may not bump a player on a Free space.

OBJECT - To deliver your freight to your city first.

4-8 Players

The same rules apply except that two player s may go to the destination and you may bump anyone during the entire game.

Chicago
D.C.
free
free
D.C.
Atlanta
D.C.
D.C.
D.C.
free
free
D.C.
D.C.
free
free
S
T
A
R
T
D.C.
free
free
D.C.
D.C.
free
D.C.
D.C.
St. Louis
D.C.
free
free
D.C.
New Orleans

Project Number 1

DISPATCHER KIT

OBJECTIVES:

This project will give the child the opportunity to observe a two way radio and to build his own model of one. He will be given the opportunity to simulate the work of a freight dispatcher.

MATERIALS:

2 baking powder cans with tops off, 2 large nails, 50 feet of single strand wire

PROCEDURE:

1. Punch a hole big enough for the wire to go through in the middle of the end of each can. Push the ends of the wire through the holes up into the cans. Fasten these to a nail. Your phone will look like this:

2. Dispatcher stands in one room and the truck drivers stand in another room. Keep the wire tight between you and speak loudly into the can. The can is the mouthpiece for listening and talking. Be sure to speak clearly.

3. Dispatcher gives the orders for deliveries and the other students take turns filling the orders. (Example: Dispatcher: "Bring 5 tons of coal to the warehouse." Driver then looks through the papers until he finds the one marked 5 tons of coal. He takes this to the dispatcher, who checks to see if that was his message.)

4. Rotate so that each child has a turn being the dispatcher.

DISPATCHER FORM

ORDER NUMBER	DRIVER'S NAME	DELIVERY DESCRIPTION	DATE DELIVERED

Project #1
(continued)

DELIVERY DESCRIPTION

1500 bushels of oranges	15 tons of seedless grapes	28 bales of cotton
400 crates of strawberries	50 boxes of gift wrapping	63 cases of cooking oil
8 yards of concrete	2 tons concrete blocks	26 cartons paper bags
7500 glass bottles	65 barrels of oil	275 bolts of cloth
32 tons of bricks	1300 gallons of milk	5000 gallons of gasoline
1260 boy's bicycles	10,000 math books	327 color television sets

DELIVERY DESCRIPTION

2700 cases of bail point pens	960 pairs of shoes	360 surf boards
50 head of cattle	400 bushels of corn	50 tons of wheat
8 new cars	2 loads of household furniture	200 tons of steel
6 jet engines	60 bags of mail	2500 gallons of paint
4280 board feet of lumber	850 cartons of shingles	3 trees, 42 shrubs and 350 potted plants

Transportation Occupations
Project #1
(continued)

DELIVERY DESCRIPTION

365 reams of paper	18 dining room tables	1 load of assorted toys
15 tons of gravel	2000 chickens	850 frozen pies
3 truck loads of farm equipment	920 heads of lettuce	425 dozen eggs

PAPER AIRPLANE CONTEST

OBJECTIVES:

The student should be able to utilize creativity and ingenuity in constructing a paper airplane (or a boat) in competition with other students in the class. This activity will help to develop his ability to follow instructions and will give him the opportunity to examine objects that glide on air and float on water.

MATERIALS:

Sheets of notebook paper or white typing paper, 8½"x11".

PROCEDURE:

A. Jet Plane:

1. Fold the paper in half to form a redtangle:

Figure 1

2. Open your paper and bring A to center fold and crease.

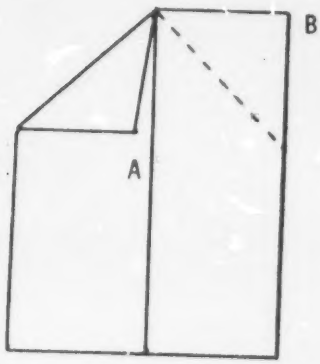


Figure 2

3. Bring B to center fold and crease. Now bring D over to the center fold and crease on line E - E.

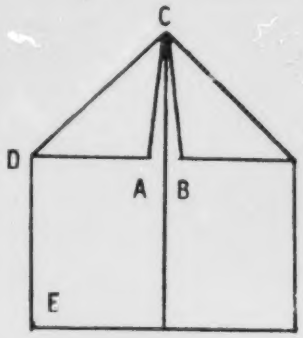


Figure 3

4. Bring G over to center fold and crease on line C - F.

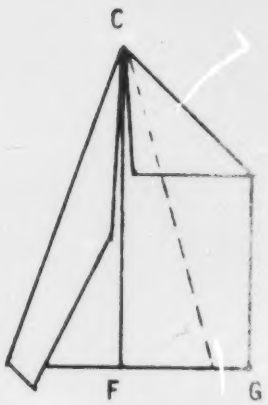


Figure 4

5. Your shape now looks like this. Leave it in this position.

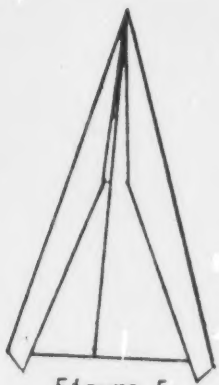
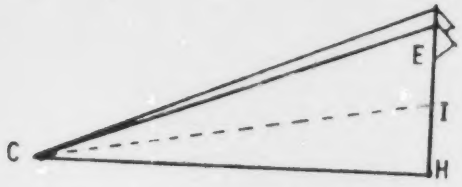


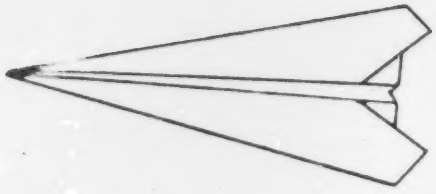
Figure 5

6. Fold along line C - H so that E falls on F.

Figure 6

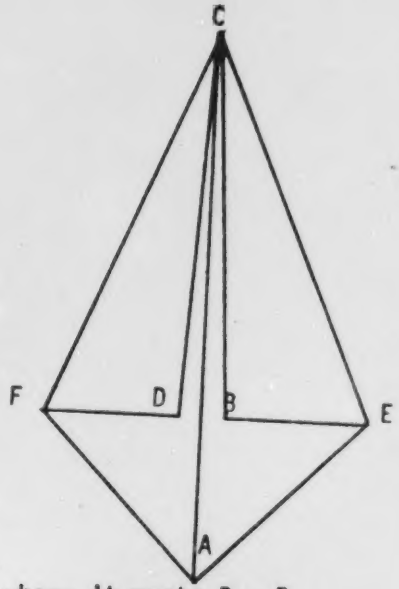
7. Place your shape in position shown in the figure below. Bring E down to H so edges meet. Crease along line C - I. Turn over. Fold top edge to bottom edge in the same way.





B. Sailboat:

1. Fold your paper to this shape:



2. Now pick up A and bring it up to where it meets B - D. Crease on G - H. Fold G - H up and crease on line E

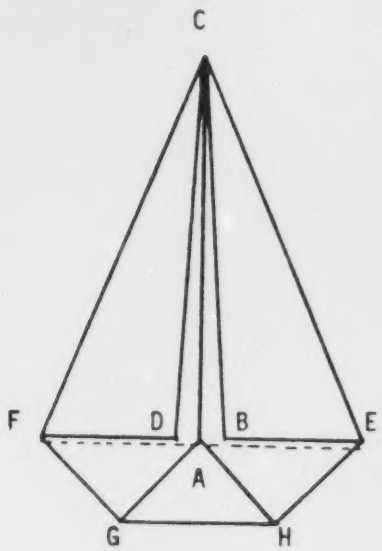
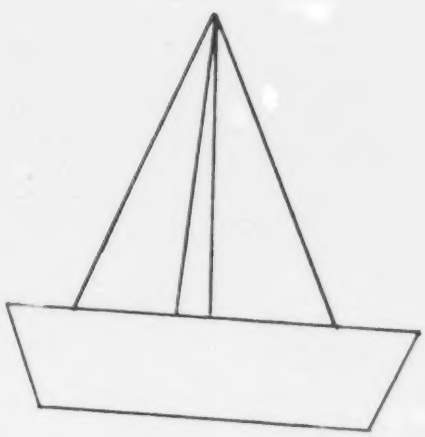


Figure 9

3. Fold E - G up and crease on line G - H.

Figure 10



FINISHED BOAT

ELECTRIC MOTOR KIT

OBJECTIVES:

Using this kit, the students should be able to demonstrate the fundamental concepts of electric motors.

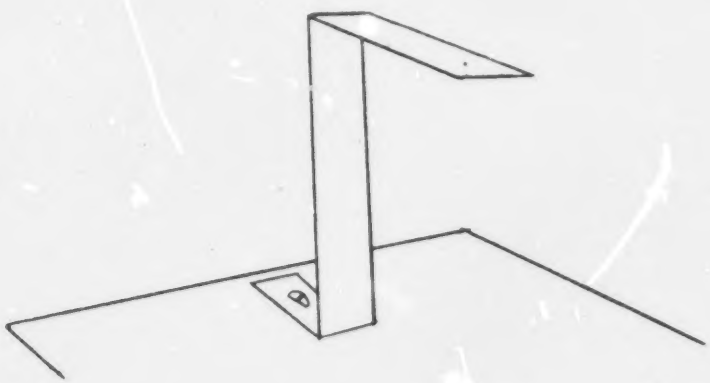
PROCEDURE:

1. Mount the 4 inch strip of metal on the breadboard using two 1½ inch bolts and four nuts and washers as shown in the illustration.

2. Mount one short bolt as the brush support.

3. Begin wrapping the electro-magnets. Strip one end and begin winding the first coil. Wind 150 turns on one bolt and wind 150 turns, in the opposite direction, on the other bolt. Cut the wire and clean the ends.

4. Form the six inch strap like this:



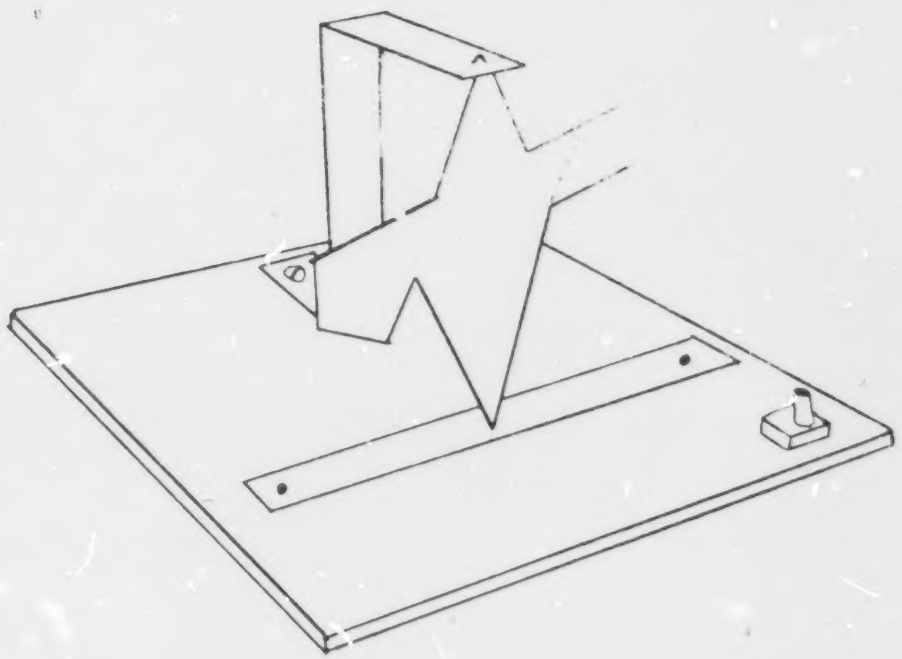
5. Mount the strap so that the top dimple is above the bottom dimple.

6. Place the armature in the dimples and adjust the strap until the armature spins freely when struck.

7. With a 6 inch piece of cleaned wire, wrap one end around the support and place the other end so that it just touches the armature on the part of its spin.

8. Attach a wire from the negative (-) terminal to the support then attach the end of the wire coming from the second coil to the positive (+) side of another battery.

9. Connect the two remaining battery terminals together and give the armature a spin. It should continue to turn until the battery is disconnected.



DOCKMAN OR FREIGHT LOADER

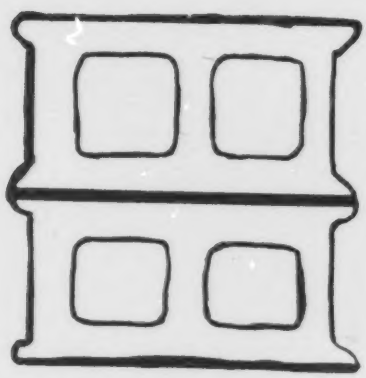
OBJECTIVES:

This lesson should show the child how machines help to move great weights. After working with pulleys, levers, and inclined planes, the children should be able to demonstrate how a worker is able to lift heavy materials with very little effort.

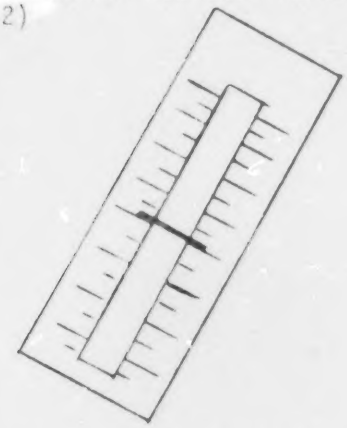
PROCEDURE:

A. Inclined Plane:

1. First, stack one of the concrete blocks on top of the other. Now hook the spring scale onto the skate. Life the skate slowly until it is as high as the stack of conrete blocks. (Figure 1)



Look at the spring scale to see how much force it took to lift the skate straight up. (Figure 2)



Record the method and the amount of force on your form. (figure 3)

HOW THE SKATE WAS MOVED	FORCE	DISTANCE	WORK DONE (force x distance)
1. Lifted straight up from the floor			
2. Pulled up the 2 foot board			

2. Next, place the 2 - foot board to that it rests against the top of the concrete blocks. This board is an inclined plane because it slopes up from the floor to the top of the blocks. Now pull the skate up the board with the spring scale. (Figure 4) How much force does it take? Record it on your form. (See Figure 3)

3. Repeat this procedure with the 3 - foot and the 4 - foot board. Record your information on the form. Compare the force required to lift the skate by each method.

   Does the inclined plane make the job of getting the skate to the top of the blocks easier? How? What differenc does the length of the board make?

   Can you think of some inclined planes you use every day? (i.e. stairs)

B. Levers:

1. First have the children attempt to lift a concrete block straight up. Now let them lift it with a lever. Make the lever by placing the 4 foot board over a brick set on its side. Place the concrete block on one end of the board. (The one with the restrain-rim) and allow the child to push down on the other end. Experiment with lengthening and shortening the distance from the block to the fulcrum. (Figure 5)

FULCRUM

2. Now experiment with lifting the block using the 6 foot board. What differences do you find?

   Try lifting 2 of the concrete blocks in this same manner. Can you think of some levers you use every day? (i.e. seesaw, a car jack)

C. Pulleys:

1. Set up the pulley to lift the conrete bloack. Attach one end of the heavy duty cord to the block and the other end to the spring scale. (Figure 6)

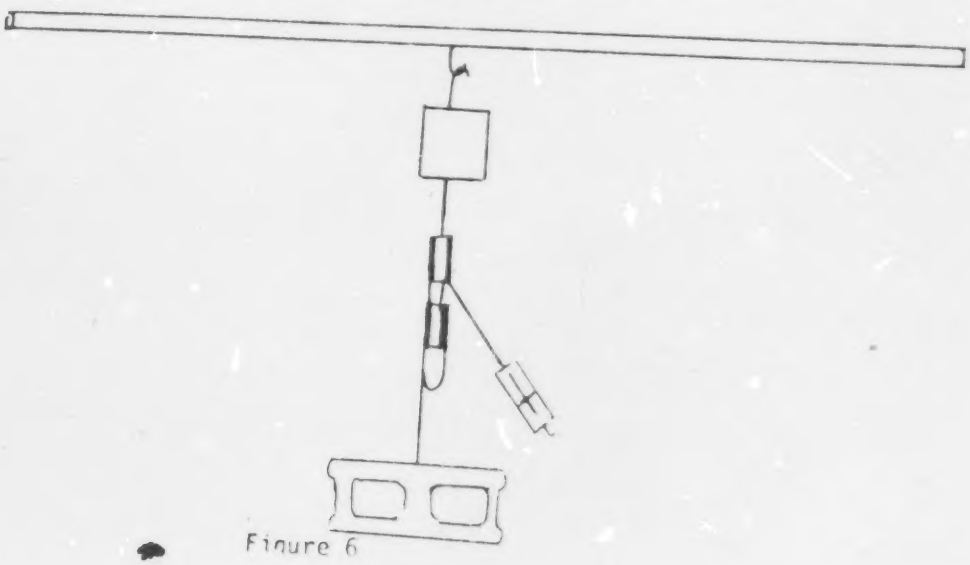


Figure 6

2. Pull the scale with the cord attached until the concrete block is lifted off the floor. How much force does it take?

3. Be sure to note the amount of string pulled dow in comparison to how high the block goes up. What are some pulleys you have seen? (i.e. water buckets in wells, painter's scaffolds, revolving clothes lines).

Transporation Occupations
Project #4

HOW THE SKATE WAS MOVED	FORCE	DISTANCE	WORK DONE (Multiply Force by Distance)

The following pages are to be used with the Game of Transportation on pages 48 and 49. After you have constructed your own game board, cut the pages that follow into cards. Make sure you keep the Disaster Cards (D. C.) seperated according to the various means of transportation:

BARGE LINES

AIR LINES

RAILROADS

TRUCK LINES

BARGE LINE

Man over board--go back 2 spaces

BARGE LINE

Dock [illegible] go back
1 space

BARGE LINE

Loaders did a fast job--take an extra turn.

BARGE LINE

Take your normal turn.

BARGE LINE

Swift river currents slow the upriver trip--lose 1 turn

BARGE LINE

[illegible] go
back 2 spaces

BARGE LINE

Swift river currents speed up the downriver trip--take an extra turn.

BARGE LINE

Take your normal turn.

AIR LINES

Take your normal turn.

AIR LINES

Plane is hijacked to Cuba--
lose one turn.

AIR LINES

Bad weather ahead--
go back 2 spaces

AIR LINES

Hijacker captured--go ahead
two spaces.

AIR LINES

Fog covers the airport--
go back 2 spaces.

AIR LINES

Air plane arrives ahead of
schedule--take an extra turn.

AIR LINES

Forgot the cargo--go back
3 spaces.

AIR LINES

Air plane develops trouble in
an engine--lose one turn.

AIR LINES

Pilots on strike--lose
one turn.

AIR LINES

Take your normal turn.

BARGE LINE

Man over board--go
back 2 spaces

BARGE LINE

Barge is lost in the fog--
lose one turn.

BARGE LINE

Loaders did a fast job--
take an extra turn.

BARGE LINE

Take your normal turn.

BARGE LINE

Fog covers the river--
lose one turn.

BARGE LINE

Captain takes the wrong turn--
go back 3 spaces.

BARGE LINE

Barge strikes a small boat--
lose one turn.

BARGE LINE

Take your normal turn.

BARGE LINE

Traveling down stream--
take an extra turn.

BARGE LINE

Making good time today--take
an extra turn.

RAILROAD

Bridge out lose next turn.

RAILROAD

Rocks ahead on the tracks--go back 2 spaces

RAILROAD

Everything is find--take your normal turn.

RAILROAD

Train wrect ahead--lose 1 turn.

RAILROAD

An extra engine is pulling freight--take and extra turn.

RAILROAD

Extra cars added, go back 1 space.

RAILROAD

Tracks ahead are clear--go ahead 2 spaces.

RAILROAD

Diesel engine develops trouble--go back 2 spaces.

RAILROAD

Train gets late start--lose 1 turn.

RAILROAD

Rails out ahead--go back 2 spaces.

AIR LINES

Good tail wind--go ahead 2 spaces.

RAILROAD

Bridge out ahead--go back 2 spaces

AIR LINES

Number one engine fails--lose 1 turn.

RAILROAD

Conductor lets passengers off--lose 1 turn.

AIR LINES

Take your normal turn

RAILROAD

Train slows for curve--lose 1 turn

AIR LINES

Air lines add a new jet--take an extra turn

RAILROAD

Train is derailed--lose 1 turn

AIR LINES

Fog delays take off--lose 1 turn

RAILROAD

Train pulls onto siding--lose one turn

TRUCK LINES

Detour ahead--go back 1 space

RAILROAD

Tracks ahead are clear--go ahead 2 spaces

TRUCK LINES

Bridge is washed out--go back 2 spaces

RAILROAD

No traffic on the tracks--take extra turn

TRUCK LINES

Wreck ahead blocks traffic--go back 2 spaces

RAILROAD

Take your normal turn.

TRUCK LINES

Truck returns to terminal for repairs--lose 1 turn

RAILROAD

Take your normal turn.

TRUCK LINES

Take your normal turn

RAILROAD

Take your normal turn

BARGE LINE

Take your normal turn.

TRUCK LINES

Driver stops for lunch--lose 1 turn.

BARGE LINE

Barge making good time--take an extra turn.

TRUCK LINES

Driver stops to check brakes--lose

BARGE LINE

Three barges removed from tow--go ahead 2 spaces

TRUCK LINES

Brakes work find--take an extra trun.

BARGE LINE

Barge is making slow progress--lose one tuen.

TRUCK LINES

Speed limit 80--go ahead 3 spaces

BARGE LINE

Radio operator receivers new instructions--lose one turn.

TRUCK LINES

Truck runs out of fuel--lose 1 turn.

TRUCK LINES

Speed zone ahead--go back one space

TRUCK LINES

New highway finished--go ahead ... spaces

TRUCK LINES

Loading takes too long--lose 1 turn.

TRUCK LINES

Truck has flat tire--lose 1 turn

TRUCK LINES

Truck line used 2 drivers--take an extra turn.

TRUCK LINES

Take your normal turn.

TRUCK LINES

Take your normal turn.

TRUCK LINES

Truck stops for a rest period--lose 1 turn.

TRUCK LINES

...ck loaders finished early--...ake an extra turn.

TRUCK LINES

Truck stops at a weight station--lose 1 turn

WHO GIVES US SERVICE?

PERSONAL AND PUBLIC SERVICES

Grades

4 5 6

ACKNOWLEDGMENTS

PUBLIC AND PERSONAL SERVICES OCCUPATIONS

* Mr. Jerry Turpin, SPAN Project, Elementary Curriculum Specialist

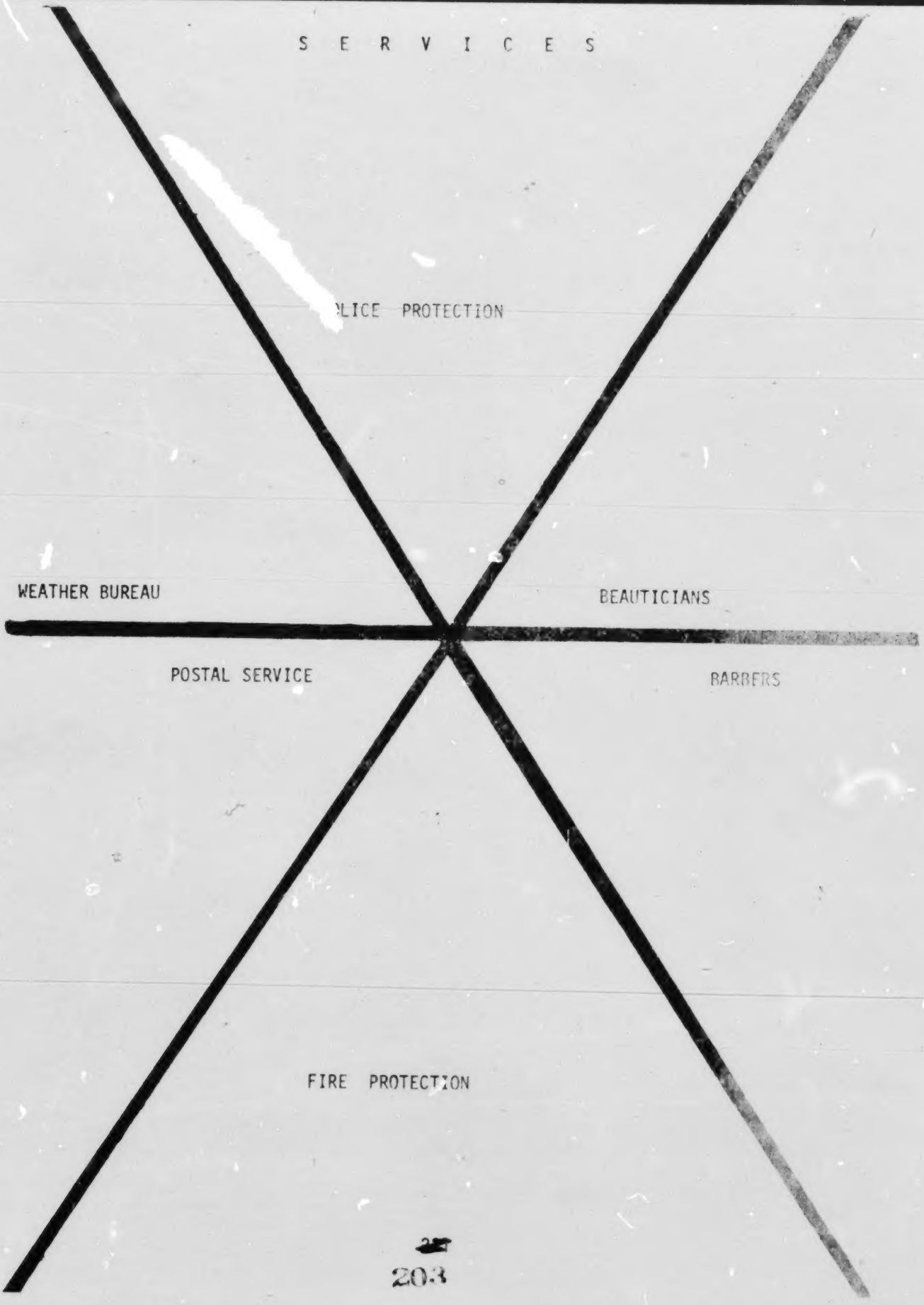
Mr. Steve West, Moler Barber College

Mrs. Ola Mae Miller, Cosmetology Teacher, Northside High School

Mr. Henry Lux, Memphis Police Department

Mrs. Barbara DeLee, Secretary, SPAN Project

* Committee Chairman


S E R V I C E S
LICE PROTECTION
WEATHER BUREAU
BEAUTICIANS
POSTAL SERVICE
BARBERS
FIRE PROTECTION

MUG - SHOTS

Police and fire protection are two of the many services that the local, state and Federal governments give to their citizens. In this film, we see these two plus the postal services, weather bureau, barber and the beautician.

LINE UP

ax
arrest
barber
beautician
chief
clippers
comb
detective
fireman
hook and ladder truck
hose
investigate
ladder
patrol car
policeman
policewoman
pumper
scissors
shampoo

TESTIMONY

" Mail Delivery" 107

"Helping the Healing Hands" 213

"At Your Service" 210

"The Badge"

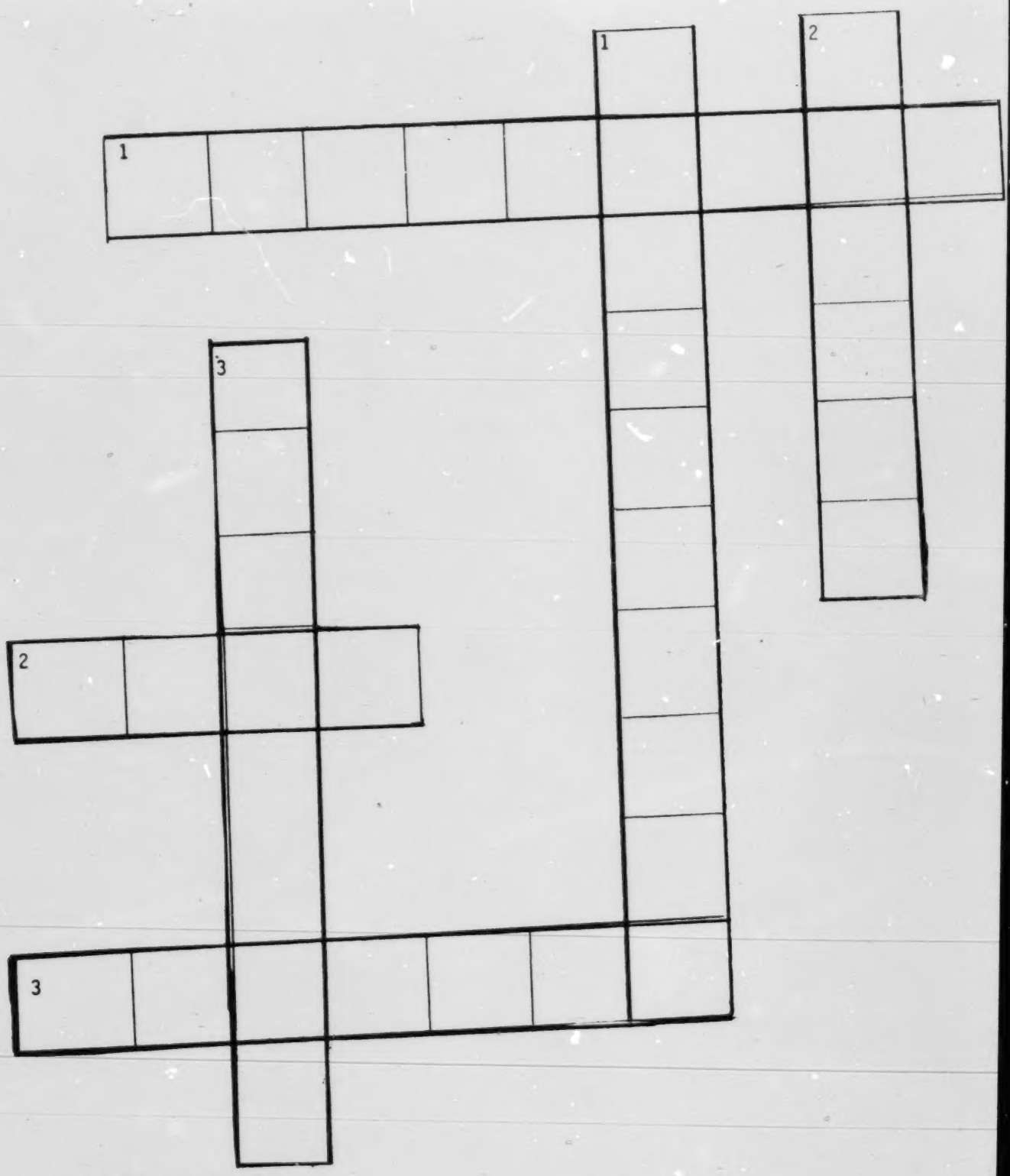
"Weather for the Beginner"

"Fireman on Guard"

SEARCH WARRANT

After viewing this film, the pupils should be able to:

1. name at least six people who give services to us.
2. Describe what each of the six does.
3. Describe the types of surroundings in which the worker is employeed.



CROSSWORD PUZZLE

Across

1. He protects us.
2. The fireman uses a _____.
3. He puts out fires.

Down

1. She helps women look pretty.
2. He cuts men's hair _____.
3. The barber uses _____ to cut hair.

LANGUAGE ARTS

Write a story about one of the characters from the television lesson. The boys may write about what the male barber, meteorologist, cosmotologist, postal employee, police officer, or fire fighter does after he leaves work. The girls may write about the female counterparts.

MATHEMATICS

Cut out the weather column from the newspaper for 5 days in a row. Then find the average high temperature and average low temperature for the week.

How to find the average:

I. Find the sum of the five numbers below.

58
72
59
61
63

II. Divide the sum by the five. This is the average.

SCIENCE

Show how clouds form by filling the bottom of a milk bottle with hot water, then placing ice cubes at the mouth of the bottle. The clouds will form in the area above the water as the moisture evaporates and condenses to form fog and clouds.

SOCIAL STUDIES

Draw an outline map of the United States. Call the U. S. Weather Bureau (332-8102) and write down the temperatures for the cities across the country. Write these temperatures for the following cities: New York, San Francisco, Memphis, Atlanta, Chicago, Anchorage, Alaska.

ART

Make a collage of pictures showing all the people who give services in your neighborhood.

WEATHERMAN

OBJECTIVE:

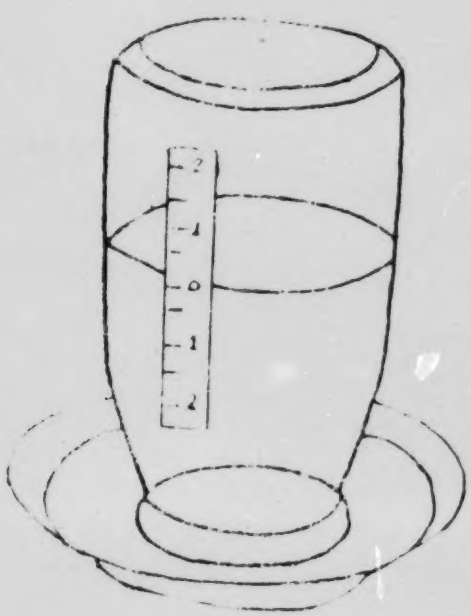
The children will be able to predict when rain is approaching.

MATERIALS:

A wide mouthed bottle, a saucer, strips of paper, scotch tape.

PROCEDURE:

1. Fill the bottle half way full of water.
2. Place a saucer over the mouth of the bottle so that the underside of the saucer is on top. Now turn the whole thing upside down, holding the saucer tightly against the bottle. Put a little water in the saucer.
3. Make a scale for the outside of the bottle. Use a ruler to mar inches and half inches on a strip of paper. Tape this scale on the bottle.
4. When a high pressure area or good weather is approaching the water will rise on the scale.
5. When rain, or a low-pressure area, is approaching, the water will fall.
6. Your barometer will look like this:



F B I K I T

OBJECTIVES:

The children will be able to compare their fingerprints to those of other people in the class and to indentify their prints according to pattern.

MATERIALS:

The finger print pattern, the personal indentification form

PROCEDURE:

1. Have each child fill in the information on the form.
2. Press each finger individually on the ink pad and then carefully press it onto the form in the appropriate place.
3. Wipe the fingers carefully and then press it onto the form in the ppropriate place.
4. The children can compare the patterns of swirls in the fingerprints with those of the other children. Also they can write the classifications of patterns under the prints. (The eight basic fingerprint patterns are shown below).

smd

PERSONAL IDENTIFICATION

Last Name	First Name	Middle Name	Sex
			Height
Residence			Weight
Place of Birth		Date Fingerprinted	Date of Birth
			Hair / Eyes

1.Right thumb	2.Right index	3.Right middle	4.Right ring	5.Right little
6.Left thumb	7.Left index	8.Left middle	9.Left ring	10.Left little
Left four fingers taken simultaneously		Left thumb Right thumb	Right four fingers taken simultaneously	

There are only eight basic fingerprint patterns. The eight patterns are shown below. The FBI uses these patterns to classify and file fingerprints.

Plain Arch

Tented Arch

Plain Whorl

Loop

Loop

Central Pocket Loop

Double Loop

Accidental

Compare your fingerprints with the patterns. Try to decide which patterns your prints are like.

HOUSEHOLD LEDGER

OBJECTIVES:

Using this kit, the students should be able to apply his knowledge of math to household budget and the necessary forms.

MATERIALS:

Banking forms
Monthly household ledger

PROCEDURES:

Have each student begin on April 1st. Under the $200.00, subtract every time money is spent and add every time money is received. Each time money is spent, make a check for the correct amount. Fill in a savings account desposit slip. Try to determine how much money is left at the end of the month.

April	1-Payday	$200.00	
April	2-Groceries - corner Grocery		$40.00
	3-Car payment to Auto Loan Co.		60.00
	4-Lunch money for children to school for the week		6.00
	5-Newspaper - Billy Jones		1.25
	6-Milkman Ralph McGee		3.00
	7-Rent - to Johnson Apartments		75.00
	8-		
	9-Savings account		15.00
	10-		
	11-Lunch money		6.00
	12-		
	13-Milkman		4.00
	14-		
	15-Payday	200.00	
	16-		
	17-		
	18-Lunch money		6.00
	19-SPAN Dept. Store		10.00
	20-Milkman		4.50
	21-		
	22-Savings account		40.00
	23-Light Gas & Water		20.50
	24-South Central Bell		15.00
	25-Lunch money		6.00

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

916

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

The SPAN BANK

19 _____

Pay to the order of _____ $ _____

_____

_____

the SPAN BANK

19

Deposit to the credit of:

Checking Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

19

Deposit to the credit of:

Checking Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

19

Deposit to the credit of:

Checking Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

19

Deposit to the credit of:

Checking Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

19

Deposit to the credit of:

Checking Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

SAVINGS DEPOSIT

19

Deposit to the credit of:

Savings Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

SAVINGS

Withdrawal Order

19

$

Received from the SPAN BANK

Dollars

Savings Account Number

Signature

Withdrawal Address

the SPAN BANK

SAVINGS DEPOSIT

19

Deposit to the credit of:

Savings Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

SAVINGS

Withdrawal order

19

$

Received from the SPAN BANK

Dollars

Savings Account Number

Signature

Withdrawal Address

the SPAN BANK

SAVINGS DEPOSIT

19

Deposit to the credit of:

Savings Account Number

Currency		
Coin		
Checks		
Total		
Less exchange		
Total		

the SPAN BANK

SAVINGS

Withdrawal order

19

$

Received from the SPAN BANK

Dollars

Savings Account Number

Signature

Withdrawal Address

POST OFFICE

OBJECTIVES:

Participating in this project will allow students to simulate the sorting process used in some post offices.

MATERIALS:

15 wooden (24) coke cases
name plates

PROCEDURE:

1. Label each opening of one coke case with the names only of the 24 largest cities in the United States (alphabetized). Label each opening of the second case with the zip codes of the cities as well as the names (Numerical order).

2. Allow the students to take turns sorting and placing the letters in the appropriate slots.

Miss Lolly Longridge
100 5th Avenue
New York City, New York 10032

Mrs. Bunny Bellows
234 South Furnace
Atlanta, Georgia 30399

Miss Elvira Peach
900 Honeycomb
Atlanta, Georgia 30311

Mr. Hardy Hammer
5467 West Coleman
Atlanta, Georgia 30367

Mr. Clayborn Hamm
1616 Sawyer Street
Atlanta, Georgia 30366

Miss Ginny Crystal
4402 Cookie Cove
Atlanta, Georgia 30367

Miss Ruth Pennyworth
8701 North Clearbrook
Atlanta, Georgia 30322

Mr. Allen Vanderburgh
69 South Wellington
Atlanta, Georgia 30366

Mrs. John Berry
888 Muffin Cove
Atlanta, Georgia 30321

Miss Corrie Cramer
257 West Driver
Atlanta, Georgia 30351

Mr. Randall Cox
609 South Benton Drive
Atlanta, Georgia 30356

Mr. Sing Lee
46 Flower Lane
Honolulu, Hawaii 96850

CUT EACH LETTER APART

Personal and Public Services Project #4

Mr. Hester Fagan 200 Dodge Trail Denver, Colorado 80255	Mrs. Sammy Beach 3405 Carnes Miami, Florida 33109
Mrs. Kitty Hawk 660 Trailblazer Denver, Colorado 80266	Mr. Fred Witcher 777 Prescott Miami, Florida 33111
Mr. Charles Linder 5501 Berger Avenue Denver, Colorado 80233	Mrs. Shirley Moore 995 Willow Cove Miami, Florida 33109
Miss Mindy Carson 776 Camelot Cove Denver, Colorado 80244	Mr. Randy Cove 666 Tidewater Miami, Florida 33101
Mr. Jim Carson 999 Danville Dr. Denver, Colorado 80235	Miss Windy Watson 6060 Sea Breeze Miami, Florida 33106
Miss Glenda Grove 920 Greenlee Miami, Florida 33101	Mrs. Cordelia Candis 6077 Broadway Miami, Florida 33188

CUT EACH LETTER APART

Personal and Public Services Project #4

Mrs. Henry Adams 1313 Benbow Lane Anchorage, Alaska 99511	Miss Laura Taylor Box 90 Anchorage, Alaska 99500
Mr. Larry Laney 201 Windy Cove Anchorage, Alaska 99513	Mr. Joel Delaney Rt. 3 Box 49 Anchorage, Alaska 99522
Mr. Harry Bunell 907 Curry Street Anchorage, Alaska 99501	Mrs. Carey Williams 3445 Turnpike Drive Anchorage, Alaska 99533
Susan Strain 111 North Wedge Anchorage, Alaska 99509	Miss Candy Land 3030 Windy Beach Los Angeles, California 90012
Mr. Jerry Massey 203 Vanuys Anchorage, Alaska 99507	Mr. Rodney Rutlege 9901 Sunnyview Los Angeles, California 90022
Mr. Garry Lassiter 3045 Prescott Circle Anchorage, Alaska 99506	Mrs. Merry Miniver 1000 Ghosts Cove Los Angeles, California 90000

Miss Holly Lane 333 North Cherry Cove Miami, Florida 33108	Mr. Thomas Green 999 10th Avenue New York City, New York 10055
Mr. Bill Jordan 4579 West Haven Miami, Florida 33108	Miss Tiffany Tyler 509 South Brookshire New York City, New York 10066
Mrs. Loudie Cain 111 Morris Miami, Florida 33177	Mrs. Ginger Stephens 7001 Union Extended New York City, New York 10043
Mrs. Velma Goldsmith 990 Oakridge New York City, New York 10090	Mr. Wilhelm Williams 600 East Brookmore New York City, New York 10022
Mr. Charles Rich 16 5th Avenue New York City, New York 10081	Mrs. Dorothy Brown 300 West Miller Avenue New York City, New York 10055
Miss Tina Tanya 230 Westmont New York City, New York 10076	Miss Lillian Lester 40 Cordova Avenue New York City, New York 10043

CUT EACH LETTER APART

Personal and Public Services Project #4

Mr. James Hunt 323 Whistle Indianapolis, Indiana 46244	Miss Lynn Bently 221 Winding Lane New Orleans, Louisiana 70181
Miss Jane Wycoff 300 Trouble Path Indianapolis, Indiana 46233	Mr. Rip Torn 500 Needle New Orleans, Louisiana 70133
Mrs. Kay Smith 444 Cherrydale Cove Indianapolis, Indiana 46266	Mrs. Lara Lurry 801 Cameo Drive New Orleans, Louisiana 70141
Mr. Ricky Cain 1000 Coach Drive Indianapolis, Indiana 46266	Miss Marie Maize 101 Lillian New Orleans, Louisiana 70155
Mrs. Carolyn Shea 4000 Tampa Cove Indianapolis, Indiana 46222	Mr. Carl Carson 555 Coral Cove New Orleans, Louisiana 70133
Miss Joyce DeLee 666 Dreamer's Cove Indianapolis, Indiana 46222	Miss Cora Keen 351 North Bently New orleans, Louisiana 70122

Miss Billy Carolle 701 Long Horn Chicago, Illinois 60699	Miss Lilly Belle Lee 1000 Messick Chicago, Illinois 60644
Mr. Harry Willis 3310 North Cactus Chicago, Illinois 60611	Miss Dorris Doris 441 West Wiley Indianapolis, Indiana 46233
Mr. George Collier 200 West Whiplash Chicago, Illinois 60612	Mr. Deen Jenkins 333 Wild Man Drive Indianapolis, Indiana 46200
Mr. Bill Wild 9000 Old West Drive Chicago, Illinois 60622	Miss Janis Nice 4545 North Morton Indianapolis, Indiana 46211
Mrs. Coral Lane 445 Grayline Chicago, Illinois 60633	Mrs. Tilly Tullis 2000 Wait a While Indianapolis, Indiana 46277
Miss Sara Courtly 222 Countess Drive Chicago, Illinois 60611	Mr. Sylvester Hammer 890 Nail Avenue Indianapolis, Indiana 46233

CUT EACH LETTER APART

Personal and Public Services Project #4

Mr. J. H. Brinkley
990 Aloha Lane
Honolulu, Hawaii 96879

Mrs. Grace Watson
333 Peaceful Cove
Honolulu, Hawaii 96877

Miss Ginger Yen
1100 Lagoon Drive
Honolulu, Hawaii 96899

Miss Andrea Brown
2300 Liberal Drive
Honolulu, Hawaii 96821

Mrs. Elvis Priestly
3000 Moonlight Cove
Honolulu, Hawaii 96800

Mr. Bob White
400 Rejuvenation
Honolulu, Hawaii 96877

Mr. Jerry Turpin
2000 Delightful
Honolulu, Hawaii 96800

Mrs. Charlene Person
400 Montana
Chicago, Illinois 60655

Mrs. Mary Buloch
101 Carefree Cove
Honolulu, Hawaii 96811

Miss Barbara Towsend
900 Courtship Lane
Chicago, Illinois 60644

Miss Barbara Sayle
707 Swinging Lane
Honolulu, Hawaii 96810

Mr. Herbert Poff
~~245~~
Rt # 3
Chicago, Illinois 96855

226

CUT EACH LETTER APART

Personal and Public Services Project #4

Mrs. Peggy Letcher
4325 Olds
Minneapolis, Minnesota 55402

Mrs. Phyliss Roberts
909 Leath
Minneapolis, Minnesota 55463

Mr. James Dudley
835 Vance
Minneapolis, Minnesota 55433

Miss Irma Douglass
905 Carnes
Minneapolis, Minnesota 55432

Miss Linda Kuhns
565 Forrest
Minneapolis, Minnesota 55302

Mr. Carl Ford
315 Tiliman
Minneapolis, Minnesota 55423

Mrs. June Holly
1894 South Netherwood
Minneapolis, Minnesota 55402

Miss Tealie McCormick
1511 Harlem
Minneapolis, Minnesota 55421

Mr. Bob White
2404 Bridgeport
Minneapolis, Minnesota 55473

Mr. Vernon Johns
1468 S. Willett
Baltimore, Maryland 21244

Miss Katherine Garrett
1748 Greenview
Minneapolis, Minnesota 55472

Mr. Forrest Evans
1309 Carrie
Baltimore, Maryland 21234

CUT EACH LETTER APART

Personal and Public Services Project #4

s. Holly DeLee 0 Rich ston, Massachusetts 02166	Mrs. Pearl Perry 320 South Windale Detroit, Michigan 48299
. Robert Ash 08 Clinton ston, Masachusetts 02133	Miss Lilly Lester 500 North Third Detroit, Michigan 48233
ss Carolyn Lee 4 Radford troit, Michigan 48233	Mr. Charles Person 320 Echles Detroit, Michigan 48299
. Lee Witcner 2 Heaven Hill troit, Michigan 48204	Miss Lillian Lowry 543 York Detroit, Michigan 48211
ss Sara Lee 45 Cookie Cove troit, Michigan 48211	Mrs. Celia Cove 711 Camelia Detroit, Michigan 48200
. George Gary 5 Misty Cove troit, Michigan 48212	Miss Marge Kenton 787 Prescott Detroit, Michigan 48203

CUT EACH LETTER APART

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Mrs. Odessa Greenfield 3302 Columbella New Orleans, Louisiana 70144	Mr. Nick Link 300 Mendenhall Boston, Massachusetts 02135
Mr. William Tell 999 Apple New Orleans, Louisiana 70122	Mrs. Carry Middlecoff 500 Golf Drive Boston, Massachusetts 02133
Miss Jeanne Leaf 4000 Cliff New Orleans, Louisiana 70133	Miss Louise Smith 3000 Scottsdale Boston, Massachusetts 02155
Mr. Perry Wycliff 205 Mason New Orleans, Louisiana 70143	Mr. Larry Laney 901 Marine Avenue Boston, Massachusetts 02155
Miss Rosemary Nick 200 Deverish Boston, Massachusetts 02144	Miss Susan Couch 3995 Carmel Boston, Massachusetts 02155
Miss Letta Lawerence 209 South 5th Boston, Massachusetts 02134	Mr. Ken Scott 200 Bank Avenue Boston, Massachusetts 02161

CUT EACH LETTER APART

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Miss Jossie Hill 1040 S. Wellington Seattle, Washington 98171	Miss Kathryn Metts 2446 Bridgeport Milwaukee, Wisconsin 53289
Mrs. Marie McCormick 488 E. Gage Seattle, Washington 98144	Mr. Odell Rice 4101 Newton Milwaukee, Wisconsin 53277
Mrs. Carolyn Pearce 743 Shotwell Milwaukee, Wisconsin 53299	Mrs. Marianne Dodd 1943 Pomona Avenue Milwaukee, Wisconsin 53244
Mrs. Ammie Woodard 2402 Rozelle Milwaukee, Wisconsin 53287	Mrs. Mary Pittman 4032 Cecil Drive Milwaukee, Wisconsin 53266
Mrs. Phyliss Wright 692 Peabody Milwaukee, Wisconsin 53276	Miss Eva Mae Brooks 3298 Park Milwaukee, Wisconsin 53287
Mr. Lynzell Hugues 832 Cella Milwaukee, Wisconsin 53244	Mr. Lamar Jones 2246 Henry Milwaukee, Wisconsin 53256

CUT EACH LETTER APART

Personal and Public Services Project #4

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Mrs. Eva MDade
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Seattle, Washington 98143

Mr. William Anderson
1410 Timothy
Richmond, Virginia 23288

Mr. Leroy Johnson
3438 Sophia
Seattle, Washington 98144

Mrs. Bernice Callaway
551 Alston
Richmond, Virginia 23290

Mr. Robert Miller
1510 Merton
Seattle, Washington 98122

Mr. Frank David
1968 Carver
Richmond, Virginia 23299

Miss Barbara Morgan
367 Boyd
Seattle, Washington 98142

Mrs. Peggy Deloach
3403 Benbow Dr.
Seattle, Washington 98155

Mr. James McKenzie
715 Edith
Seattle, Washington 98177

Mr. Dean Harviel
4017 Camelot Lane
Seattle, Washington 98155

Mrs. Eva McGhee
6855 Goodlett
Seattle, Washington 98132

Miss Donna Hickman
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Miss Bettye Moore
756 Prescott
Richmond, Virginia 23244

Mr. John Cranford
572 Terrell
Salt Lake City, Utah 84133

Miss Phredonia Welch
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Richmond, Virginia 23255

Miss Freda Kenner
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Mr. Tom Swayzee
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Miss Jane Lassiter
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Mrs. Mary Trueberger
649 Greer
Richmond, Virginia 23247

Mr. Robert Jonakin
350 Alexander
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Mr. Robert Danile
695 Lucille
Richmond, Virginia 23299

Mrs. Emma Hall
5447 Quince
Salt Lake City, Utah 84177

Mrs. Billie Hansborough
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Miss Maxie Smith
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Mr. Paul Taylor
990 Mississippi
Dallas, Texas 75222

Mr. Wayne Johnson
900 Wild Horse Drive
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Mrs. Fredric Jay
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Mrs. Windy Landers
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Mr. Isson Jackson
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Miss Sylvia Sands
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Mr. Albert Broadway
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Mrs. Jacqueline Sales
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Mrs. Dorothy Polk
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Washington, D. C. 20244

Mr. Odis Armstrong
2024 Keltner
Washington, D. C. 20244

Miss Earlene Price
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Mrs. Brooksie Lowenthal
25 N. Century
Washington, D. C. 20255

Miss Dorothy Dandridge 770 Gravely Memphis, Tennessee 38118	Miss Larry Cain 34 South Driver Memphis, Tennessee 38112
Mrs. Carolyn Pike 509 Wellington Memphis, Tennessee 38110	Mrs. Bill Taylor 3406 Carnes Memphis, Tennessee 38117
Mr. James Skipper 499 State Street Memphis, Tennessee 38111	Mr. Joe Bowden 3967 Carolina Memphis, Tennessee 38117
Miss Jane Lasiter 707 Prescott Cove Memphis, Tennessee 38113	Miss Sissy Carolle 444 South Arnold Memphis, Tennessee 38116
Mr. Kenton Fischer 698 Tutwiler Memphis, Tennessee 38119	Mr. Darren Wimpole 606 Celia Dallas, Texas 75233
Mrs. Henry Bates 990 Ashwood Memphis, Tennessee 38116	Mrs. Willa Williams 990 South Sands Avenue Dallas, Texas 75232

Miss Sandra Roush
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St. Louis, Missouri 63121

Mrs. Hannah Fowler
490 Forrest Glen
New York, New York 10078

Mrs. Eva Echols
41 North Third
St. Louis, Missouri 63199

Miss Erma Blount
2447 Sherrie Cove
New York City, New York 10098

Mr. Louis Rozier
2022 Harbert
St. Louis, Missouri 63188

Mr. Louie Pearson
439 West Vance
New York City, New York 10078

Miss Frances Payne
1919 Marian
St. Louis, Missouri 63167

Mrs. Carrie Pevahouse
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Mrs. Eyelyn Lovorn
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St. Louis, Missouri 63132

Mrs. Nancy Cummings
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Baltimore, Maryland 21233

Mr. John Major
940 Jackson
St. Louis, Missouri 63121

Mr. Fredric Letcher
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Baltimore, Maryland 21255

Miss Lula Jones
469 Alston
St. Louis, Missouri 63123

Mrs. Vernon Johnson
270 Edith
Baltimore, Maryland 21277

Miss Evalena Jacob
107 Crockett
St uis, Missouri 63199

CUT EACH LETTER APART

Personal and Public Services Project #4

Mr. Theodore Jamison 5324 Poplar Pike Cleveland, Ohio 44467	Mr. Wilford Hammilton 1850 Kingsview Dr. Philadelphia, Pennsylvania 19161
Miss Lorene Mason 1877 Foster Cleveland, Ohio 44478	Mr. Melvin Martin 534 Edith Philadelphia, Pennsylvania 19144
Miss Harry Young 3595 Mynders Philadelphia, Pennsylvania 19165	Mr. Lester Berkley 2008 Boxdale Philadelphia, Pennsylvania 19133
Mrs. Mary Holmes 1582 Stribling Philadelphia, Pennsylvania 19145	Mrs. Ruby Peacock 1888 Waverly Philadelphia, Pennsylvania 19122
Mrs. Vera Sawyer 1821 Netherwood Philadelphia, Pennsylvania 19144	Mrs. Lois Sawyer 2075 Claremont Philadelphia, Pennsylvania 19166
Mrs. Cleo Jones 1996 Quinn Philadelphia, Pennsylvania 19144	Miss Mary Hill 1934 Cherry Hill Park Philadelphia, Pennsylvania 19133

Mrs. Barbara Bowen 1536 Livewell Cl. New York City, New York 10065	Mrs. Becky Hawkins 1877 Foster Cleveland, Ohio 44432
Mr. Sam Battle 1313 Gailor New York City, New York 10046	Miss Susie King 1531 Ethlyn Avenue Cleveland, Ohio 44421
Mr. Dan Dailey 432 Montrose New York City, New York 10055	Mr. James Melton 385 McFarland Drive Cleveland, Ohio 44456
Mr. Charelton Creston 2344 Planet Avenue New York City, New York 10066	Mr. Taylor Caldwell 81 S. Parkway Cleveland, Ohio 44466
Miss Thelma Pittman 729 Boston Cleveland, Ohio 44432	Miss Ethel Homes 1862 Keltner Cleveland, Ohio 44477
Mrs. Ruby Glankler 2410 Perry Cleveland, Ohio 44423	Mrs. Dorothy Melton 1799 Westmore Cleveland, Ohio 44489

WHO FEEDS US?

A TEACHER'S GUIDE

TO

CONSUMER AND HOMEMAKING

RELATED OCCUPATIONS

Grades

4 5 6

A C K N O W L E D G M E N T S

CONSUMER AND HOMEMAKING - RELATED OCCUPATIONS

*Miss Francis Gandy, Consultant, Home Economics, Memphis City Schools

Mrs. Mildred Blaine, Manager, Union Planters' Bank Dining Room

Mr. Joseph McDonald, Commercial Foods Teacher, Northside High School

Miss Sarah L. McNairy, Teacher, Caldwell Elementary School

Mrs. Daisy Jarrell, Guidance Counselor, Messick High School

Mrs. Grace Williams, Junior High Curriculum Specialist, Project SPAN

Mrs. Odessa Meyers, Secondary Instructional Consultant, Southwest Area

*Committee Chairman

MENU PLANNING

After a game of baseball in the park, two boys hungarily dream about the different places there are to eat and how it would feel to eat at them. Workers in the various surroundings are shows, and comparisons can be made by the students.

WHO FEEDS US?

WKNO TV

CHUCK WAGON

After viewing this film, the students should be able to:

1. Name at least five of the workers in a restaurant or cafeteria.
2. Explain how the people in a restaurant help each other.
3. Describe the surroundings that a food service worker works in.

DESSERTS

16mm films available from Memphis City School, board of education.
"Bakery Beat" "Bread" "Clothes We Wear"

TOSSED SALAD OF VOCABULARY

WAITER
WAITRESS
DISHWASHER
CASHIER
MANAGER
CHEF
MAITRE D'HOTEL
BUSBOY
DISH
MENU
TIP
LUNCHEON
DINNER
BREAKFAST

MATH PROBLEM

You are the buyer for a cafeteria and must order the supplies for the children. On scratch paper figure up how much it will cost. Then fill out the ORDER FORM to send to the supply house.

1. Each child needs 1 1/2 pints of milk per day. There are 250 students in the school. You need to order _____ pints of milk. Each pint of milk costs 14¢. The milk will cost_____.

2. Each child receives 1 hamburger for lunch. A pound of ground beef will make 4 hamburger patties. In order to serve 250 children you need to order _____ pounds of ground beef. A pound of ground beef costs 59¢. The meat will cost _____.

3. You must order buns for the 250 hamburgers. There are 8 buns in each package. You must order _____ packages of buns. The buns cost 29¢ per package. The total cost will be _____.

4. The children will have potato chips with their hamburgers Each package of potato chips will serve 6 children. You need to order _____ packages of potato chips. The chips cost 43¢ per package. The total cost will be _____.

5. The cokes for the children will cost 8¢ each. The total cost will be_____.

SPAN and Company

Wholesale Grocers, Inc.
Since 1971

DATE	SCHOOL	BUYER	
Number of Items	Items Needed	Price per Unit	Total Price
	Milk	14¢ per pint	
	Ground Beef	59¢ per pound	
	Buns, Hamburger	29¢ per pkg.	
	Potato Chips	43¢ per pkg.	
	Cokes	8¢ each	
		Gross Amount	

SCIENCE PROBLEM

The food inspectors visit the restaurants to check for harmful bacteria which spoil the food. These bacteria can make people very, very ill and can even kill them.

However, there are many helpful bacteria which aid man. You can grow some of these helpful bacteria.

To grow yeast the materials needed are half of a cantaloupe, 1 package of yeast. Mix the package of yeast with a tablespoon of water. Dip the handle of a teaspoon into the yeast solution covering it with yeast. With the tip of this handle cut a line into and across the fruit. Set the cantaloupe to one side. After a few days the growth will spread as a white film over the fruit. You can see a white line beginning to form. You may try this same experiment with a dried prune which has been boiled and crushed.

ART - HOW TO MAKE BURLAP FLOWERS

A. Burlap: scraps of burlap in various colors, pipe cleaners in various colors (at least 5 of each color), coat hangers, green florist's tape, white glue.

Form petals by twisting the ends of 5 pipe cleaners of the same color.

Apply glue to one side only of the pipe cleaner and arrange on the burlap, glue side down.

Allow to dry and then cut just outside the pipe cleaner.

While the petals are drying make the centers by cutting 2" x 4" oblong of burlap and ravelling one edge lengthwise leaving 1/2 inch from the other not ravelled.

Put glue on one side of the unravelled edge. Wind the burlap fringe around the end of a coat hanger which has been bent out and straightened.

Hold until the glue begins to set. Wind and stretch the florist's tape around the flued burlap and down over the wire. Be sure to overlap each layer and work smoothly. Tear the tape.

Add the petals around the centers one at a time. fastening to the stem with florist's tape. Wind the tape around each petal 5 times.

Continue until 5 petals have been added. Then bend the petals outward about half way from where they are attached.

Make leaves by bending green pipe cleaners in this shape

and gluing in the same manner as the petals. Attach to the stem about 3 inches below the petals.

B. PAPER: Brilliantly colored tissue paper, coat hangers, florist's tape

Cut rectangles of paper 8 1/2" x 11". Select 6 of these sheets (either all the same color or a variety). Treating them like a single sheet of paper fold them accordian style.

Press the pleats together in the center and fasten by looping one end of a wire coat hanger tightly around it.

Pull the top layer of tissue paper toward the center shaping it as it is pulled. Repeat until all layers have been pulled to the center and shaped.

Cut rounded-corner squares of green tissue paper about 3" square. Cover with glue and slide into the wire and up to the under side of the flower. Hold until the glue sets.

RESTAURANT KIT

OBJECTIVES:

After the simulation in this project, the student should be able to order a meal and pay for it, set a table, take an order and serve a meal.

MATERIALS:

Food kits, silverware, food order forms, trays, play money, cash register. menus, table cloths, napkins.

PROCEDURES:

1. Select volunteers to be the waitress, the cook, manager-cashier, the family,
2. Set up a table or tables for the restaurant and a desk for the cashier.
3. Waitress sets table, (see illustration #1) Cashier shows family to table and they are seated.
4. Waitress brings menu so family can order. She takes order and cook prepares the trays. Waitress serves the food and brings check. Father checks the waitress' arithmetic and pays the bill at the cashier. He is sure to leave a tip.
5. Waitress clears the table.
6. Students rotate so they can play various roles.

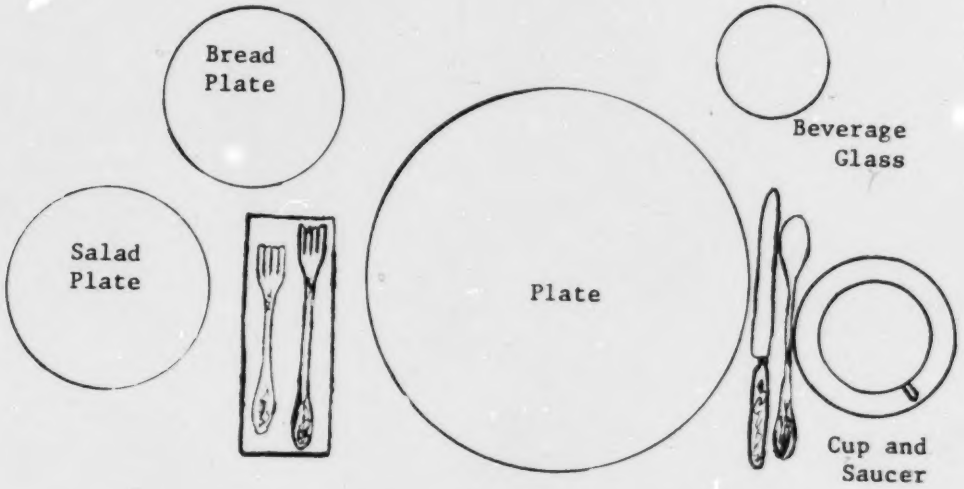


Illustration #1

CUT HERE

WAITRESS CHECKS — CUT ON LINES AS INDICATED

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

CUT HERE

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

CUT HERE

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

Five Oaks

Date	Waitress	No. Guests

Tax	
Total	

CUT HERE ~~272~~ CUT HERE

BREAKFAST MENU

Served until 11:00 A.M.

EYE OPENER.....90

Freshly toasted bread topped with poached eggs. Served with jelly. Choice of Coffee, Tea, or Milk.

EGGS

Eggs a la goldenrod with sausage or bacon.....1.55

Two eggs, bacon or sausage.....1.55

One egg bacon or sausage.....1.25

Two eggs, ham.....1.55

One egg, ham.....1.35

Above items served with Toast and Jam. Coffee, Tea, or Milk.

SIDE ORDERS

Rasher of Bacon, 4 strips.....60

Rasher of Sausage.....60
4 links or patties

Ham, 2 1/2 ounces.....70

One Egg.....30

Two Eggs.....50

Danish Pastry.....40

Hash Brown Potatoes.....35

Steak and Egg.....3.25
Hostess Sirloin Steak, cooked to you specifications with one Egg any style. Served with Toast and Jelly. Coffee, Tea, or Milk.

FRUITS AND JUICES

One-half Grapefruit....40

Stewed Prunes.....35

Chilled Fruit Juice....30

Apricots.....35

Fruit cup.....50

CEREALS, HOT OR COLD

With Milk.....35

With Cream.....50

With Fruit.....60

BEVERAGES

Coffee "All you want"....20

Milk.....20

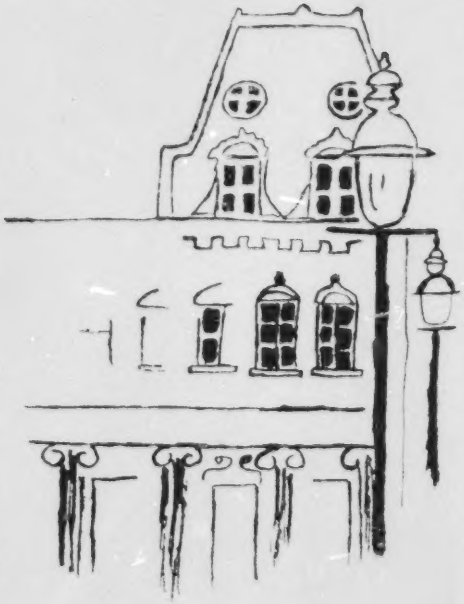
Tea, hot or iced.....20

Hot Chocolate.....20

Iced Coffee.....20

THE CONTINENTAL...85

Choice of Juice, Danish Pastry with Butter and Jelly. Coffee, Tea, or Milk.



Breakfast
Tea

APPETIZERS

Cue half grapefruit.....35

Fruit cup.....40

Chilled fruit juice.....35

SOUPS

Cream of Tomato

Bean with Pork

Meat and Vegetable

"The Captain's Bowl".....55
"The Journeyman's Cup....35

SALADS FOR LUNCHEON

Cream Cottage Cheese with Carrots....45

Creamy Cottage Cheese with Pineapple..45

Holiday Fruit Salad.....65
"Salads created by our chef as an entree"

ACCOMPANYING SALADS

Crisp Green Tossed Salad.....45.

Holiday Creamy Cole Slaw.....30

Lettuce and Tomato.....50
"Salads complemented with a choice of Dressing, Assorted cracker Basket and Butter

BEVERAGES

Hot Coffee "All You Want"...20

Hot Chocolate.....20

Milk.....20

Iced Coffee.....20

Iced Tea.....20

Soft Drinks.....20

Milk Shakes.....35

JULIAN'S SPECIALITIES

Steak On-A Sandwich.....2.95
"Seven Ounces of Choice Beef, Served On Our Roll with a Crisp Tossed Salad and Choice of Potato".

Skillet Fried Chicken.....2.25
"One half Golden Fried Pullet, Lightly Dusted with Toasted Bread Crumbs. Then dipped in Egg Batter, Cooked Quickly to your order - Served with Crisp Tossed Salad, Choice of Potato or Vegetable".

Tavern Chopped Sirloin Steak.....2.55
"8 Ounces of the All-American Entree" - Topped with Mushroom Sauce

SANDWICHES

Beefburger.....65
Delicious Chopped Sirloin Steak Served with Pickle and Onion on Toasted Bun
with Melted Cheese.....85
with Lettuce and Tomato....85
with French Fries and Cole Slaw...1.05
All sandwiches are accompanied by crisp potato chips

Grilled Cheese.....75
"A Melted Materpiece Accompanied by Sliced Dill Pickles".

Corned Beef.....1.35
"Wafer Thin Slices of Corned Beef on Rye with a Kosher Dill".

SUGAR AND SPICE PANTRY

Hot Apple Pie.....35

Fruit or Cream Pie.....35

Fruit or Cream Pie.....35

Cheese Cake.....60

Parfait or Sundae.....50

Fruit Gelatin.....35

Frosty Fruit Sherbert.....30

Luncheon
Set
11½
Doily
Five
Doily

APPETIZERS

One Half Grapefruit.....35
Chilled Fruit Juice.....35
Fruit Cocktail.....40

SOUPS

Cream of Tomato
Bean With Pork
Meat and Vegetable
"The Captain's Bowl".....55
"The Journeyman's Cup"....35

CAP'N HOLIDAY'S CATCH

Broiled Rainbow Trout.....3.25
"From the Icy Mountain Streams this Delectable Fish is Slowly Broiled and Sprinkled with Lemon-Butter"

Salmon Loaf with Cream Sauce....2.05
"Delectable Mountain Stream Salmon Topped with a Rich Cream Sauce"

SUGAR AND SPICE PANTRY

Hot Apple Pie.....35

Flavors-of-the-Month Ice Cream.....30

Frosty Fruit Sherbet.....30

Traditional Cheese Cake.....60

LARGE SALADS

Shrimp Remoulade.....2.15
"Crisp Salad Topped with Whole Shrimp, Tomato Wedges, Egg Slices and Remoulade Sauce."

Turkey Salad.....1.65
"Julienne Breast of Turkey with Bacon Crumbles and Tomato Wedges, Served on a Bed of Crisp Salad Greens."

Holiday Fruit Plate.....1.55
"Cottage Cheese or Frosty Sherbet with Assorted Chilled Fruit, Served on a Crisp Bed of Lettuce."

Salads complemented with a choice of dressing, assorted cracker basket and creamy butter.

BEVERAGES

Hot Coffee "All You Want".....20

Hot Chocolate.....20

Milk.....20

Iced Tea.....20

Soft Drinks.....20

COACHMAN'S SPECIALTIES

Town Crier Pork Chops.....3.75
"Lean Pork Loins Broiled to Perfection - Crisp Green Salad, Choice of Potato or Vegetable

Skillet Fried Chicken.....2.25
"Golden Fried Pullet - Served with Crisp Tossed Salad, Choice of Potato or Vegetable."

Broiled Chicken.....2.25
"One half, Tender Broiler, Basted with Butter and Broiled to a Golden Brown - Served with Crisp Tossed Salad, Choice of Potato or Vegetable."

Country Baked Ham.....3.25
"Seven Ounces Tender Ham baked in the Southern Tradition - Served with Crisp Tossed Salad and Baked Sweet Potato

Prime Ribs of Beef.....4.50
"Succulent Beef Ribs Cooked to Your Order and Served in Natural Juices"

Roast Leg of Lamb.....4.00
"Tender, Succulent Lamb with just a Hint of Mint."

ICE CREAM PROJECT

OBJECTIVES:

The completion of this project will allow the pupils to imitate the skills of a cook and to derive the pleasure of creating a "dish".

MATERIALS:

1 hand crank ice cream freezer, 1 sack of crushed ice, 1 box of ice cream salt, a 6 pack of Orange Crush (it cannot be just orange drink), 1 small can of crushed pineapple, 2 cans Eagle Brand condensed milk, 1 bottle opener, 1 can opener.

PROCEDURE:

1. Pour into the canister all three ingredients.
2. Replace the lid and place canister in the freezer.
3. Pack ice around the canister, being sure to alternate with layers of ice cream salt.
4. When it is completely filled, turn crank.
5. When the crank is hard to turn the cream is ready.
6. Remove the dasher and pack ice around the canister for at least 30 minutes.

RADISH GARDEN

OBJECTIVES:

By participating in this project the students should be able to determine the positive and adverse effects of weathers on food crops.

MATERIALS:

Various soil
1/2 pint milk containers
radish seeds

PROCEDURE:

Cut the top from the milk containers and clean them throughly. Label each container according to the type of soil it will have:

1	sandy	dry
2	sandy	
3	clay	dry
4	clay	
5	rich	dry
6	rich	

Fill the containers with the correct type of soil and place a few radish seeds 1 1/2 inches deep.

Place the container in the window so that the sun will shine on them. Water the ones marked dry every third day beginning today. Water the others every day.

Fill in the chart as they grow.

SAMPLE

Mark / for no growth
X for growth

Measure the heights, note this on the record like...

RADISH GROWTH CHART

Type of soil	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
SANDY DRY																					
SANDY																					
CLAY DRY																					
CLAY																					
RICH DRY																					
RICH																					

SUGGESTED FIELD TRIPS

1. Visit the school cafeteria and watch the workers prepare the lunches.

2. Visit a short order restaurant in the neighborhood of the school.

SUGGESTED SUPPLEMENTARY ACTIVITIES

Ask your principal to assist you in setting up a "Special Table" in the school cafeteria. Secure a tablecloth (from the PTA or ask someone in the school or neighborhood to donate an old tablecloth, but one in good condition) for the table and flowers for the centerpiece (these may be fresh or art flowers made by different classrooms).

Rotate the responsibility of setting up the table and service of the food each day (these students should probably be 6th graders). Make 3 girls responsible for putting on the tablecloth and centerpiece. Be sure they place the napkins and silverware on the table in the proper places. The table will have 10 places.

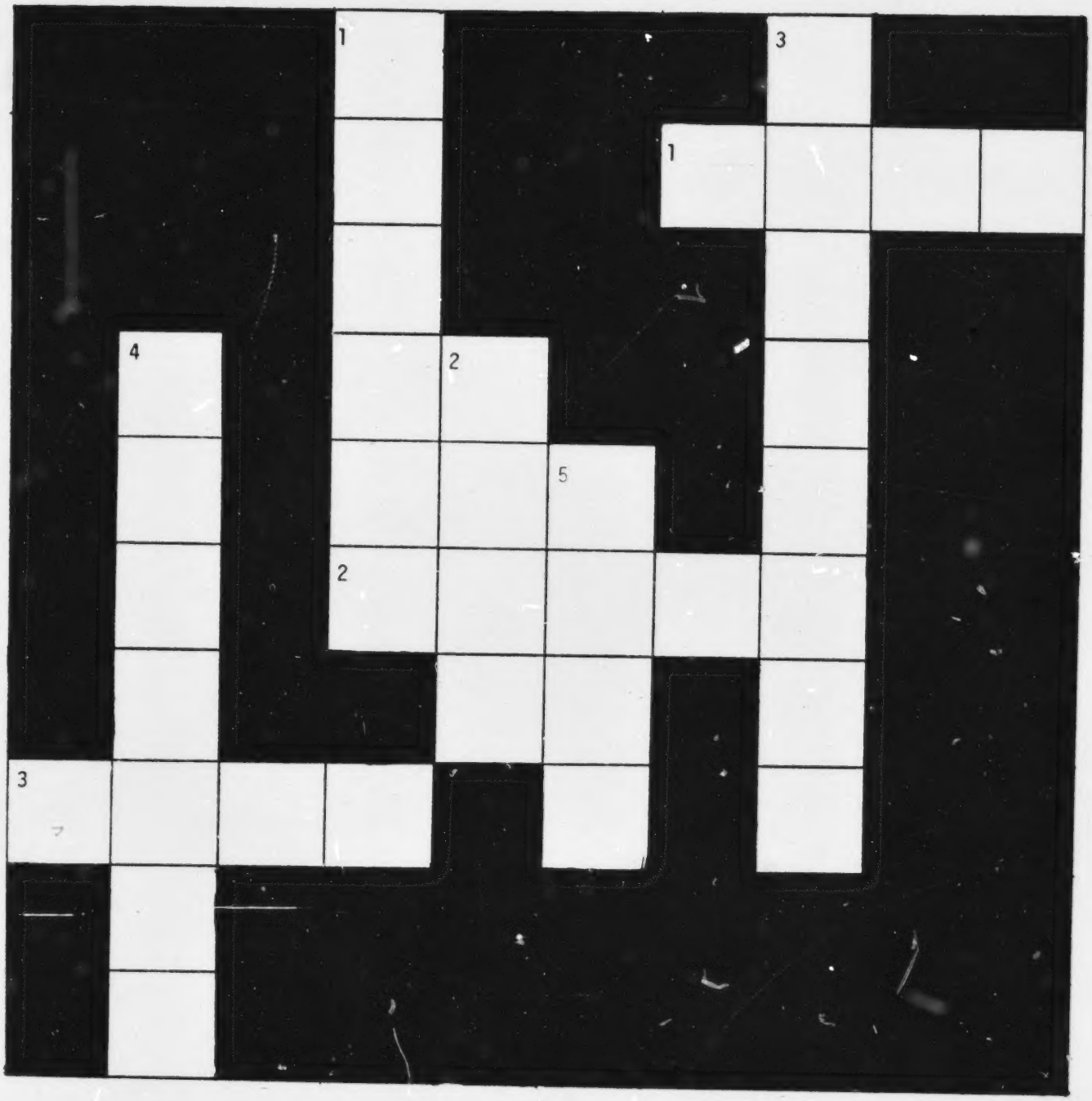
The same classroom which is responsible for the "waitresses" can be responsible for 10 boys to "serve" the 10 people at the table their food and to clear away the dirty dishes afterward.

The guests at the "Special Table" should include 2 adults (the principal and 1 teacher, 2 teachers, 1 teacher and 1 parent, etc.) and 8 children - from the same grade level - selected by the teachers of that grade level. The children will be guest for 1 day only and should "dress up" and be on their best behavior for the occasion. (This necessitates their being advised of their selection at <u>least</u> one day in advance).

D	M	A	I	T	R	E	'D	A	T
L	I	E	C	T	E	Y	T	A	R
R	M	S	L	O	O	K	N	E	D
I	A	G	H	B	H	E	T	I	C
G	T	H	S	W	V	I	X	O	A
D	N	U	G	O	A	H	Q	K	S
A	B	E	T	W	S	S	O	N	H
L	S	S	E	T	S	O	H	$	I
A	N	F	E	H	C	U	Z	E	E
S	W	A	I	T	R	E	S	S	R

The following words are hidden above. They may be backwards, forwards, diagonal or even diagonally backwards. See how many you can find. Circle the words as you find each one.

Salad Girl
Maitre'd
Chef
Oven
Cook
Waiter
Waitress
Busboy
Cashier
Dishwasher
Hostess



CROSSWORD PUZZLE

Across

1. Food is cooked in pots and _____.
2. A _____ is used to cook food.
3. A _____ lists the food a restaurant serves.

Down

1. Plates, cups and saucers are called _____.
2. Food is cooked in _____ and pans.
3. She waits on tables in a restaurant.
4. She greets the customers and seats them.
5. A _____ cooks the food.

WHO SELLS OUR GOODS?

MARKETING AND DISTRIBUTION

OCCUPATIONS

Grades

4 5 6

ACKNOWLEDGEMENTS

MARKETING AND DISTRIBUTION OCCUPATIONS

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Mrs. Freida Pearson, Distributive Education Teacher-Coordinator, Treadwell High School

Mr. Jim McAlister, Distributive Education Teacher-Coordinator, Wooddale High School

Mr. Bob Rosenthal, Director of Personnel, Sears, Roebuck and Company

Mrs. Sarah Weber, Distributive Education Teacher-Coordinator, Sheffield High School

Mr. Brooks Culp, Distributive Education Teacher-Coordinator, Carver High School

* Committee Chairman(s)

SALES TALK

Two children are given a close look at the people who work in stores when they win the prize of their choice in a local contest. They see how people work and where they work as they go to various stores shopping for their prize. Both department stores and speciality stores are visited by the children.

INVENTORY

After viewing the film, the children should be able to:

1. Name at least five workers in the marketing and distribution field.
2. Explain how scales people help us.
3. Describe various types of jobs available in the marketing and distribution field.

BUYERS GUIDE

advertisement
buyer
credit
cash
cash register
check
sales
salesman
saleslady
manager
stock
clerk
inventory

LANGUAGE ARTS

GREAT - GIANT - FANTASTIC

Have you ever seen these words used in an advertisement? People who write advertisements for newspapers, magazines, radio and television use these words to make their products seem better than their competition. See if you can take the following seem better than their competition. See if you can take the following sentences and make them sound better.

1. Our new car is nice.
2. Kaptain KooKoo cereal is good for you.
3. Zener television has very good color.
4. Robbie Rivers clothes fit well.
5. ABC detergent gets most of the dirt out of your clothes.

REWRITE

1. _____
2. _____
3. _____
4. _____
5. _____

MATH

The third street Department Store sells many different types of merchandise. In order to make a profit, third street Department Store adds a percentage of the cost to each item they sell. If an item costs $25.00, and ten percent is added to the price, we can see how much the item will sell for. (Ten percent is .10)

$25.00	cost
2.50	added ($25.00 X .10)
$27.50	selling price

Find out how much each of the following would sell for.

LAWNMOWER

$50.00	cost
	added
	selling price

ELECTRIC STOVE

$400.00	cost
	added
	selling price

CANDY

$ .10	cost
	added
	selling price

Math (Continued)

Juniors" Used Cars sells automobiles. Instead of the ten percent that department stores add to the cost, automobile dealers add twenty percent. See if you can find the selling price of the following automobiles.

1971 Klondike Kougar

$2,000.00 cost

added

Selling price

1970 Carnes Cat

$2,500.00 cost

added

Selling price

1972 Springdale Spider

$5,000.00 cost

added

Selling price

Math (Continued)

At the end of each day, the money in the cash register must be checked to be sure that it agrees with the amount of goods sold. If the cash register says that $3,250.00 worth of goods were sold in one day, there should be $3,250.00 in the cash register drawer.

How does the cash register keep track of what is sold and how much? Many cash registers keep a record of each sale. At the end of the day, the record tells the sales for the day. Some cash registers only keep a continuous total from day to day. That means that the cash register does not always start out on zero. If it starts on $500.00 and at the end of the day it reads $700.00, only $200.00 worth of merchandise was sold.

See if you can tell how much was sold on these days.

BEGINNING READING	$200	$600	$950	$1300	$1900
FINAL READING	$600	$950	$1300	$1900	$3000

SOCIAL STUDIES

You have just been hired to design a new shopping center for Memphis, Tennessee. You have chosen a mall like the one in figure I, because it is covered and protects the shoppers from the rain, heat and cold. Your mall has room for twenty shops.

Every mall needs some large department stores to bring in the customers and a number of small speciality shops that offer different types of merchandise.

Select the stores that you want to include in your mall. Place the number of the stores you have chosen in the blank spaces on figure I to show where each store is to be located.

The following list of stores have requested space in your mall; select the ones that you want to include.

DEPARTMENT STORES

1 - Sears
2 - Pennays
3 - Goldsmiths
4 - Lowensteins

SPECIALITY SHOPS

5 - Woolworths
6 - Walgreens
7 - Dairy Queen
8 - Dipper Dan Ice Cream
9 - Shoneys Restaurant
10 - Morrisons Cafeteria
11 - Walden Book Store
12 - Parkland Hosiery
13 - Merle Norman Cosmetics
14 - Red Goose Shoes
15 - Bakers Shoes
16 - Tall Mens Shop (clothes)
17 - Robert Halls (clothes)
18 - Singer Sewing Machines
19 - Swiss Colony (Cheeses)
20 - Doktor Pet Center
21 - First National Bank
22 - Memphis Bank & Trust Company
23 - Hancock Fabric Center
24 - Thrashers Fabrics
25 - Noels Barbeque

Social Studies
(Continued)

SPECIALITY SHOPS (continued)

26 - National Shirt Shop
27 - Archers Mens Clothes
28 - Ed's Camera Shop
29 - Bob's Camera Shop
30 - Hall Mark Card Shop
31 - Zale Jewelry
32 - Broadnax Jewelry
33 - Baptist Book Store
34 - Orange Julius
35 - The House of John Simons

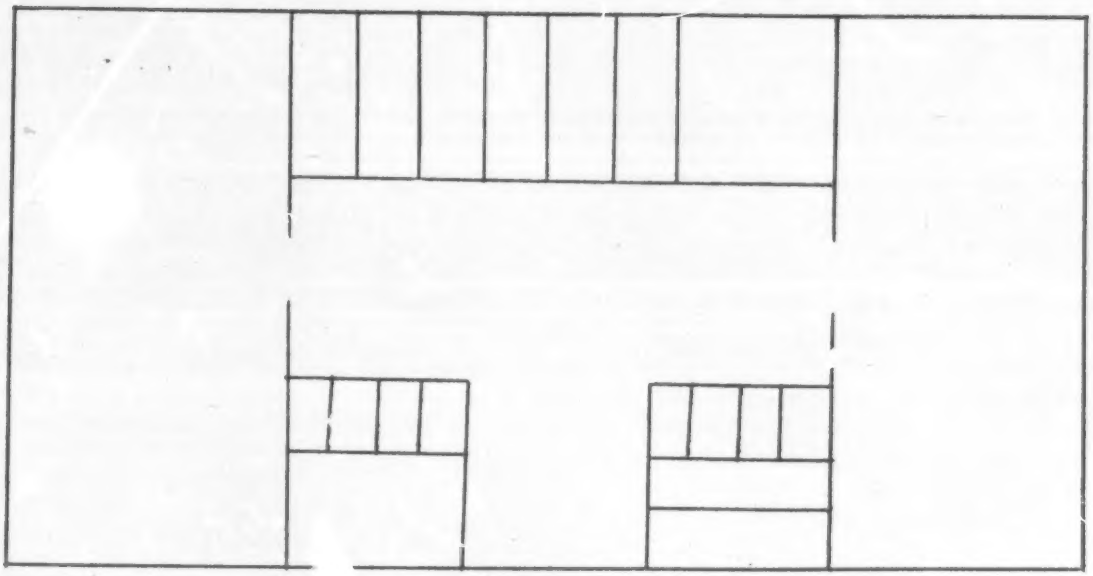

Figure I

Marketing and Distribution
Project # 1

RETAIL PURCHASING

OBJECTIVES:

Participation in this project will allow the pupils to simulate the purchasing of school clothes for three different income groups. They will also be able to compare the difference between the cost of clothing if cash is paid and if credit is used.

MATERIALS:

One retail catalogue (Sears, Speigel, Etc.) one order form, one credit account table, scratch paper, tax tables.

PROCEDURE:

1. You have $500.00 to spend for back-to-school clothes for three elementary aged children. Select all the clothing necessary and fill in the order form. Be sure to figure in the tax. There will be postage since you are having the merchandise mailed to your house.

2. You have $200.00 to spend for back-to-school clothes for three elementary aged children. Select all the necessary clothing and fill in the order form. Be sure to figure in the tax. There will be no postage, since you plan to pick up the merchandise at the store.

3. You have $100.00 to spend for back-to-school clothes for three elementary aged children. Select all the necessary clothing and fill in the order form. Be sure to figure in the tax. There will be no postage, since you plan to pick up the merchandise at the store.

4. Using the credit account table, figure how much you would pay for your clothing if you charged it instead of paying cash.

5. Discuss the purchases made by each group of students. Did they include under garments, shoes, and socks? Did the students realize how much more difficult it is to buy clothes for three children for $200.00 or $100.00 than it was to buy them for $500.00?

Marketing and Distribution
Project # 2

RETAIL STORE SIMULATION

OBJECTIVES:

In this simulated work experience, the students will develop the ability to count money, give change, record sales transactions and restock shelves.

MATERIALS:

Cardboard boxes to construct a sales counter
Bookcases for shelves
Cans (emptied from the bottom)
Play money
Sales Slips

PROCEDURES:

1. Construct a sales counter from the cardboard boxes. Refrigerator boxes are very good for this.

2. Stock the shelves with the empty cans. Mark a price on those cans that do not have the price marked on the top.

3. Select one student or a group of students to be the salesclerk. Select one student to be the customer.

4. Give the customer some play money with which to purchase his groceries.

5. The salesclerk totals the bill and receives payment for the groceries. Then using math, the salesclerk gives the customer the correct change.

6. At the end of each round of transactions, the customer returns the groceries and the salesclerk restocks the shelves.

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Amount of Sale	Amount Received	Denomination of Change		Total Change